# A STUDY TO ASSESS THE STRESS AMONG POLICE PERSONNEL BEFORE AND AFTER AEROBIC LAUGHTER THERAPY IN SELECTED POLICE STATION, KERALA.

**BY**

**30083644**

A DISSERTATION SUBMITTED TO THE TAMILNADU Dr.M.G.R. MEDICAL UNIVERSITY, CHENNAI, IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE IN NURSING

MARCH – 2010

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# ACKNOWLEDGEMENT

I praise and offer my sincere thanks to GOD for giving me strength and blessings throughout this study.

I extend my thanks to Dr.JKK. MUNIRAJAHH, Founder and Managing Trustee, Annai J.K.K Sampoorani Ammal College of Nursing, Komarapalayam for the facilities he had provided and concern shown during the period of my study in this institution.

With utmost gratitude, I express my sincere thanks to Dr. JAYASEELAN MANICKAM DEVADASON, Dean, Annai J.K.K Sampoorani Ammal College of Nursing for his efficient guidance, untiring efforts and patient correction, encouragement and valuable suggestion which helped me to lay strong foundation for this study. Indeed I am highly blessed to have him as my research guide.

I express my deepest gratitude and thanks to Dr.TAMILMANI, Principal, Annai J.K.K Sampoorani Ammal College of Nursing for her constant support, valuable guidance and moral support at every stage of the study which helped me in giving shape to this study.

I am greatful to Prof. JESSIE SUDARSANAM, Annai J.K.K Sampoorani Ammal College of Nursing, for her valuable guidance and expert opinion.

I extend my heart felt thanks to the panel of expert validators namely Dr. Mrs. TAMILMANI, Dr.MUNIRAJU, Mr.ARVINBABU, Mrs.VANAJA, Ms.SOPHIA, Mr.SENTHIL KUMAR for validating the tool amidst their busy schedule and given valuable suggestion for this study.

It gives me immense pleasure in acknowledging the help and support of Prof. DHANAPAL, statistician, Annai J.K.K Sampoorani Ammal college of Nursing, Komarapalayam, who deserves a word of special thanks for his guidance in statistical analysis.

I extend a special thanks, to the librarians, Mr. JEYARAJ and Mr. EBENEZAR, Annai JKK Sampoorani Ammal College of Nursing, NIMHANS Bangalore, and the librarian of Dr.MGR Medical University, Chennai and CMC Vellore for providing the necessary support and guidance in the search for the literature on the project.

I extend my thanks to Mr.RAVIDOSS, Mrs.RUTH, Office Staff of Annai J.K.K Sampoorani Ammal College of Nursing, Komarapalayam for their whole hearted co-operation and encouragement during this study.

I express my sincere thanks to Mr.RAJA, Medical Surgical Department of KMCH, Coimbatore for guiding me through the training of laughter therapy which enabled me to do the therapy for the police personnel.

I extend a special thanks to Mr.MADHU, IPS., Superintendent of Police (Rural), Thiruvananthapuram, Government of Kerala for granting me permission to conduct my research study.

Though I cannot find adequate words to express my sincere gratitude to my beloved parents Mrs.D.CHANDRIKA and Mr.K.CHANDRAN, and my sister Mrs.SHOBA, and my brother-in-law Mr.MANOJ MADHAVAN, for their prayful support, encouragement, co-operation and financial help which enabled me to complete this great task without any expectation.

I extend my sincere thanks to ALL THE PARTICIPANTS of my study without whose help, this study would not have been possible.

I would like to express my sincere gratitude to Mr. P.PURUSHOTHAMAN and Mr. VAKKOM PRABHA who helped me to make this study a reality.

I thank my dear uncle Mr.SATHEESH BABU and family who has been a great motivation and encouragement throughout my study.

I sincerely thank my mentor Mr.RAVI and Mr. THIYAGARAJAN and my friend JACOB PAUL.

I want to thank my MUTHU who has been a great support and help throughout the study.

I take this opportunity to thank Mr. V.MOHANRAJ, Mr.M.SETHURAMAN, Mr.M.PALANISAMY, Mr.T.JAGANRAJ, and Mr.S.MANIKANDAN, who spend their valuable hours of work to shape this thesis neatly.

I express my sincere thanks to Mr.M.SENTHILKUMAR, Staff Nurse of Psychiatric Ward, Government Head Quarters Hospital, Erode who was a source of inspiration and encouragement to do this laughter therapy.

I also express my gratitude and heartfelt love towards MY LOVABLE CLASSMATES, ALL TEACHING STAFF AND WELLWISHERS for their whole hearted encouragement in to doing this study.

No research dissertation can be completed without the unrelenting support of all those good hearted people who have help me tiredlessly to make this thesis work a possible one.

Above all I owe my success to GOD.

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# CHAPTER – I

## INTRODUCTION

### BACKGROUND OF STUDY

"STRESS is a biological term for the consequences of the failure of a human or animal to respond appropriately to emotional or physical threats to the organism, whether actual or imagined (Hans Selye, 1956). Stress can be called as the body's response to situations that pose demands, constraints or opportunities.

Anyone can be affected by stress, but the extend to which we experience stress depends on our life style and is, therefore, largely self imposed. Whether you have control over the situations that is causing you stress or not, you can have control over your reaction to the situation. In other words, you can control how stressed you can become.

Stress is difficult for scientists to define because it is a subjective sensation associated with varied symptoms that differ for each of us. In addition, stress is not always a synonym for distress. Situations like a steep roller coaster ride that cause fear and anxiety for some can prove highly pleasurable for others. Winning a race or election may be more stressful than losing but this is good stress.

Increased stress increases productivity – up to a point, after which things rapidly deteriorates, and that level also differs for each of us. It is much like the stress or tension on a violin string. Not enough produces a dull raspy sound and too much an irritating screech or snaps the string but just the correct degree of stress creates a beautiful tone.

Similarly, we have to find the right amount of stress that permits us to make pleasant music in our daily lives. You can learn how to utilize and transforms stress so that it will make you more productive and less self destructive.

## Police Stress

High levels of stress related illness are causing concern across industry. Against a background of impending legislative moves to try to improve this situation, there is a need to identify key work related stressors. Police work tends to be regarded as inherently stressful because of the personal risk of exposure to confrontation and violence and the day-to-day involvement in a variety of traumatic incidents. As a result, a high level of stress related symptoms might be expected in the population.

If we take a quick overview of police work the biggest stressors include killing some one in the line of duty, partner killed in the line of duty, lack of support by the department / bosses, shift work and disruptions of family time / family rituals and the daily grind of dealing with the stupidity of the public.

## Laughter Therapy

"Laugher is the most effective wonder drug.
Laughter is the universal medicine"

- Bertrand Russel

Mahatma Gandhiji words and his saying are "If I did not have my sense of humour, I would have committed suicide", "You are not dressed completely if we don't wear a smile your face". Laughter contagious once laughter begins in a group of people it can spread like a chain reaction, breaking tension and increasing fellowship" (Sally Abrahms., 2008)

The sound of roaring laughter is far more contagious than any cough, sniffle or sneeze. Humor and laughter can cause a domino effect of joy and amusement, as well as set off a number of positive physical effects.

Laughing is infectious Hospitals around the country are incorporating formal and informal laughter therapy programmes into their therapeutic regimen. In countries such as India, laughing clubs in which participants gather in the early morning for the sole purpose of laughing are becoming as popular as rotary clubs in US.

## Aerobic Laughter

Aerobic laughter is a fun and easy technique that enables us to laugh long and hearty without the use of jokes or comedy. Aerobic laughter is a simple technique that allows us to bypass our "laughter conditions". So we can once more enjoy our natural laughter. Aerobic laughter starts with simple warm-up exercises. These are followed by a series of "structured laughter" exercises. Simple body exercise, that help us to enjoy our natural laughter.

Aerobic laughter counters stress in prisoners and wardens and can improve rehabilitation and reduce disciplinary problems.

## NEED FOR THE STUDY

Law and order in the city is supervised by the City Police Commissioner and he is assisted by a Deputy Police Commissioner. Rural area is under the supervision of a Police Superintendent (rural). There are three police subdivision each in the rural and city areas which are headed by the deputy superintendents and Assistant Commissioners respectively. There are fourteen circles in the rural area and nine in the city. There are forty eight police stations in the district, of which 17 are in the city. Two units, headed by Assistant Commissioners,

supervise the traffic. Three Fire Force units operate from Chakkai, Neyyattinkara and Tiruvananthapuram. There are two Armed Police Camps in Tiruvanathapuram, one in the city and the other at Neyyattinkara.

Attingal Jurisdiction coming under the District Superintendent of Police (rural), Tiruvanandapuram Government of Kerala. The Attingal Jurisdiction headed by the Deputy Superintendent of Police (Dy.SP). In Attingal there is a total of 13 Circle officers. The total population of Tiruvanandapuram District is 32,34356 and the total strength of Police at Tiruvananthapuram is 6,500 which is disproportionate to the population of Thiruvananthapuram. This reflects the amount of additional work and related stress that is faced by the police force.

While police officers are often recognized as heroes, many people are unaware of the magnitude of stress that police officers face. Every one faces stress on the job, yet police stress is truly unlike other types of job stress. Long term police stress can result in high blood pressure, heart diseases, ulcers, head aches and digestive disorders and it can even impair an officer's mental health.

Police are prone to high stress levels that can lead to health problems, reduced performance, domestic problems and violence. Aerobic laughter is used by police forces in many countries to reduce stress and build emotional resilience.

There has been a good deal of research on the psychiatric problems focusing on areas such as stress, personality studies, symptoms of post traumatic stress disorder involving the police.

A survey of stress problems in Indian police personnel by Mathur (1993) reported that certain job related factors acted as specific stressors for the police such as their work

conditions, work overload, lack of recognition, fear of severe injury or being killed on duty, inadequate equipment, shooting some one in line of duty, anti-terrorist operation, confrontation with public, lack of job satisfaction and police hierarchy.

Bhaskar (1986) has identified several factors intrinsic to the job and closely related to the work as major contributors to stress related problems among police personnel.

The Bureau of Police research and development (BPR & D) in India has conducted a study in 1993 to identify the various stressful aspects at work, home and community environment to understand their impact on health.

Spragg (1992) identified post traumatic stress disorder as a major problem among police personnel working in traumatic situation and found that exposure to stressors outside the range of work leading to demoralization and brutalization pre-disposes them to post traumatic stress disorders.

A study by Saathoff and Buckman (1990) evaluated 26 state police officers who were self referred by the department, revealed that the most common primary diagnosis was adjustment disorders followed by substance abuse and personality disorder.

Veena, et.al., (1986) reported that Ischemic heart disease and acute myocardial infarction are very high among police personnel subjected to higher degrees of stress.

Mathur (1995) has reported the police personnel were well aware of stress encountered on a day to day basis in a study involving 71 gazzated officers and 81 sub-ordinate officers. About 85% of officers from both the groups admitted suffering from stress due to their occupation. The major stressors among the senior officers were neglected family, inspection tours, frequent transfers trouble with boss and staying away from family, while there

in sub-ordinates officers included neglect of family, non-grant of leave, doing VIP security duty, performing unofficial work, etc.

Gershon, et.al., (2009) conducted a study which estimates the effects of perceived work stress in police officers and determines the impact of coping on both perceived work stress and health. Officers from a large, urban police department (*N* = 1,072) completed detailed questionnaires. Exposure to critical incidents, workplace discrimination, lack of cooperation among co-workers, and job dissatisfaction correlated significantly with perceived work stress. Work stress was significantly associated with adverse outcomes, including depression and intimate partner abuse. Officers who relied on negative or avoidant coping mechanisms reported both higher levels of perceived work stress and adverse health outcomes. Results have implications for improving stress-reducing efforts among police officers. Interventions that address modifiable stressors and promote effective coping and resiliency will probably be most beneficial in minimizing police stress and associated outcomes.

Lorraine Brown (2007) conducted a study to assess the relationship between stress and long term absence. Workers experiencing long term absence as a result of stress related psychological problems. The data were collected by indepth interviews addressing details of their work, family structure and efforts to make to establish a work life balance. The result shown the workers who are experiencing more stress, shown more absence.

Laughter therapy is the therapeutic use of humour and laughter to improve emotional well being in order to facilitate improvement in health. (Johnston, 2000)

Laughter is a combination of modified respiratory movements. It can be defined as an inspiration followed by much short convulsive expiration, during which rima glottis remains open and the vocal cord vibrate. Studies have proved that the right frontal lobe has an important role to play in appreciation. The muscles involved in laughing are fourteen in number. Laughter is a universal phenomenon initiated by numerous by numerous factors. The range of

laughter arousing experience is enormous from physical tickling to mental well being of the most various types. In all these types there is a common element which reflects the logic of humours. The first component involves perceiving the particular aspect of humour it is intellectual structure. Then comes its emotional face which makes one laugh, smile or giggle. Next comes a release of unconscious pent up emotions as recognized by the great psychologist Sigmund Freud. (Mathew.F.M., 2003)

Laughter signifies positive things to people it may add to feelings of togetherness, closeness warmth and friendliness. Humour provides a channel for relieving anxiety, tension and insecurity and may also serve as a defence mechanism with which a person deals with oppressive issue. (Sheldon, 1996).

A study showed that "in the 1950's people used to laugh 18 minutes a day but today we laugh not more than 6 minutes per day despite the huge rise in the standard of living". (Michael Titze, 2008)

The studies by American researchers have found that laughter therapy can Improve emotional release through laughter, beating stress, fear and anger through laughter, burning calories through laughter, boosting blood flow through laughter, boosting the immune system through laughter. (Buck Wolf 2005).

Laughter is an antidote for stress in the pursuit of happiness. Modern studies on happiness reveal that happy people are more energetic, creative, social, trusting, loving and responsive. Studies reveal that beneficial effect of laughter in reducing the stress hormones and improving the immune system. Similarly the laughter therapy improves the interpersonal relationships and self confidence. (Leeberk, 2003)

Studies haven shown that laughter therapy helps to develop your personality and leadership qualities and develop a more positive attitude towards life. Minor set backs or irritants in every day life no longer cause a serious disturbance and you learn to deal with them much more effectively. (Garden.J., 2001)

Researchers have found that antibodies in the mucous membranes of the nose and respiratory passages increase after laughter therapy. As a result, the frequency of colds, sore throats and chest infections is reduced. Since laughter improves the level of endorphins, which are natural pain killers in our body, it helps to reduce the intensity of pain from arthritis, spondylitis, cancer and migraine. Asthmatics derive benefit from this exercise as it improve lung capacity and oxygen levels in the blood. (Donald, 2003).

Studies shown that laugh every day 15 minutes keeps one fresh throughout. Nobody can escape through which is contagious. Shedding of laughter leads to the development of confidence and leadership qualities as well as communication skills. Humour contributes greatly to a feeling of well being. Stress and strain in modern life is taking a heavy toll of the human mind and body. Laughter therapy provides better sleep and reduces depression and proved that people with suicidal tendencies have started living with more hope. (Kataria, 2005)

Studies shown that more than 70% of illnesses are related to stress including high blood pressure , heart diseases, depression, anxiety and psychosomatic disorders. The treatment of mind related diseases is aided by the easiest form of meditation. Many studies have shown that stressful life situations generate changes, complexities and challenges to which if individual can not respond adequately, illness can result. To get relief from stress, number of interventions were carried out. Among which laughter is considered as the best one as it needs no talent. (Pits.P., 2008)

## STATEMENT OF THE PROBLEM

A study to assess the stress among police personnel before and after aerobic laughter therapy in selected police station, Kerala.

## OBJECTIVES

1. To assess the stress among police personnel before and after aerobic laughter therapy in selected police station, Kerala.
2. To test the association between the mean difference in stress and selected factors among police personnel in selected police station, Kerala.

## HYPOTHESES

$H_1$ : There will be a significant difference in the stress among police personnel before and after aerobic laughter therapy in selected police station, Kerala.

$H_2$ : There will be a significant association between the mean difference in stress and selected factors among police personnel in selected police station, Kerala.

## OPERATIONAL DEFINITIONS

1. Stress: Stress is defined as a physical, mental or emotional response to events that cause bodily or mental tension. Stress is any outside force or event that has an effect on our body or mind. In this study stress will be measured by police stress questionnaire. Stress was measured in terms of stress score. For the purpose of the study, stress was classified as follows.

1.1. Operational Stress: Stress related to the police work inside and outside the police station, their personnel factors (friends and family) and how the community is perceiving their job as measured by the operational police stress questionnaire.

1.2. Organizational Stress: Stress caused due to the involvement in the hierrarchial organizations and dealing with the seniors, juniors and co-workers which is measured by the organizational police stress questionnaire.

2. Aerobic Laughter Therapy: Refers to systematic laughing among a group of police personnel, induced by self and combined with exercise and breathing without taking the help of Jokes / comedy. Its done following the steps specified in aerobic laughter therapy guide for 20 minutes once in a day for 14 days.

3. Selected Factors: The selected factors refer to those factors which are thought to influence the mean difference in stress among police personnel. The selected factors were age, educational status, marital status, type of family, religion, experience, area of posting, habits, leisure time activity, work demand, type of dependents, illness, duration of sleep, duration of work and rank of police personnel.

4. Police Personnel: Refers to the individuals who were employed as constables, head constables and assistant sub inspector of police in the Government of Kerala.

## ASSUMPTIONS

The following assumptions were made in this study.

- Police personnel will experience stress
- The response of police to the items in the questionnaire will be the true measure of stress influence by them.

- Items in the questionnaire would be sufficient to assess the stress among police personnel.
- Police personnel will participate in this study willingly.
- Police personnel will carry on the laughter therapy without any interruption.

## DELIMITATIONS

Study is limited to,

1. Police personnel available at the police station in the time of data collection.
2. Practice of laughter therapy for 14 days only.
3. Police personnel selected by convenience sampling method.

## CONCEPTUAL FRAME WORK

A conceptual frame work is a group of concepts and set of propositions that spells out the relationship between them.

Conceptual frame work play several inter related roles in the progress of science.

Polit and Hungler (1995) states that a conceptual frame work is an inter-related concepts or obstruction that are assembled together in some rational scheme by the virtue of their relevance to a common theme.

Conceptual frame work used in this study is the modification of Von Bertalanffy's general system theory. A system is a set of interrelated parts that comes together to form a whole. The parts rely on one another are inter related, share a common purpose and together form a whole. A system has a specific purpose or goal and uses a process to achieve that goal. The content is the product and information obtained from the system. Bertalanffy explained that any system has four major aspects.

i. Input

ii. Throughput

iii. Output

iv. Feedback

Input: It is the type of information that enters in to the system from the environment through its boundaries.

In this study, the background factors of police personnel, the Aerobic laughter therapy and pre test stress among police personnel were the input.

Throughput: refers to the operation phase with manipulation and activity. It is the process that allows the input to be changed, so that it is useful to the system.

In this study, the aerobic laughter therapy was the throughput, through which the stress among police personnel was decreased. The nurse conducted the aerobic laughter therapy daily. There was an interaction by the nurse and the police personnel, direct observation of laughter therapy. The police were instructed and followed regular practice of aerobic laughter therapy for 14 days.

Output: refers to any information that learns, the system and enters the environment through system boundaries.

In this study reduced stress was the output which was measured by the post test of police stress questionnaire.

Feed Back: It is the result of throughput. It allows the system to monitor its internal functions, so that it can either increase or restrict its input or output.

In this study, the effectiveness of aerobic laughter therapy was the feedback, scored with respect to post test of police stress questionnaire.

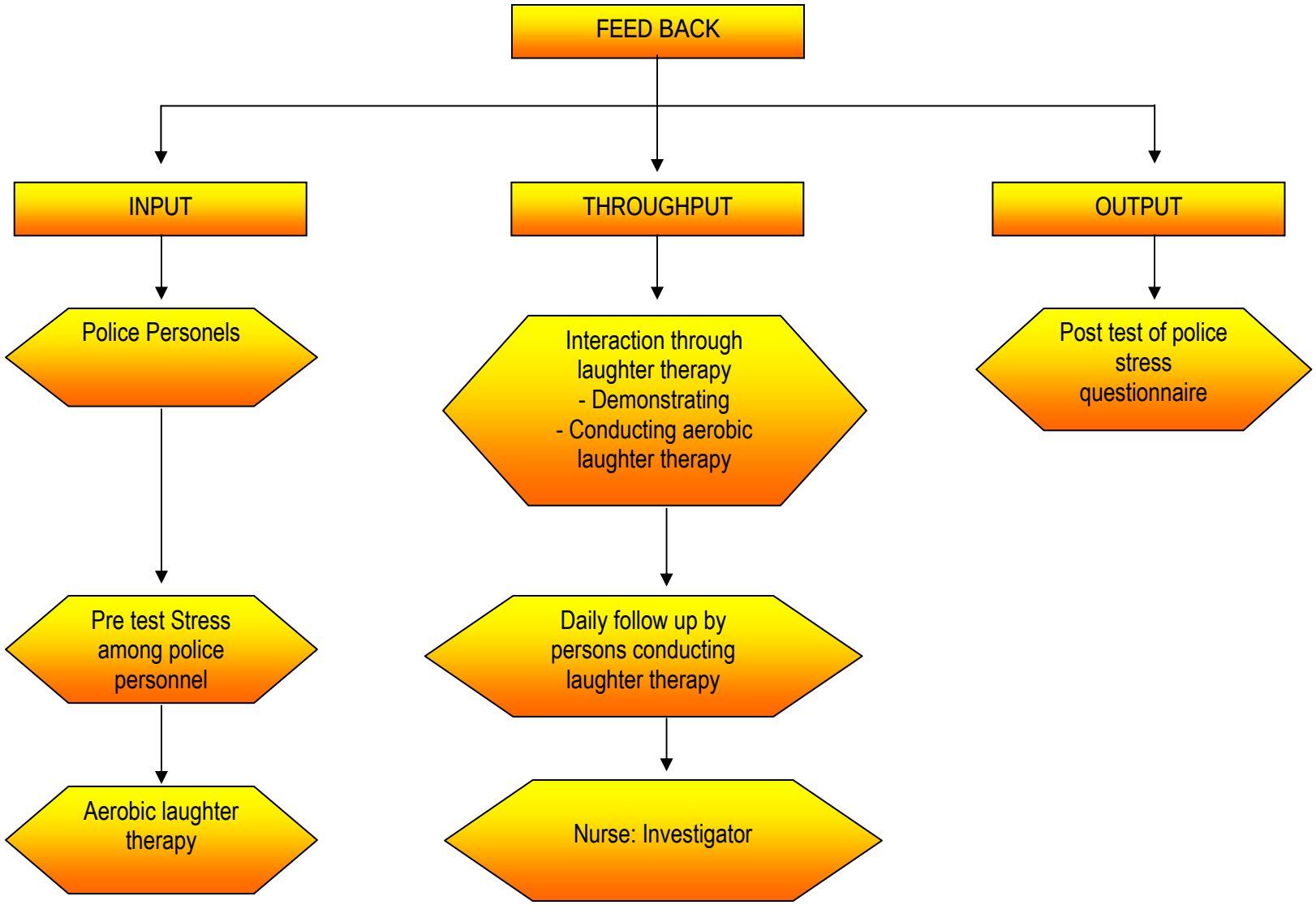


FIG. 1: CONCEPTUAL FRAME WORK

# CHAPTER – II

## REVIEW OF LITERATURE

Polit (1999), literature review refers to the activities involved in identifying and searching for information on a topic and developing an understanding of the state of knowledge on that topic.

Literature review can search a number of important functions such as identification of the topic, to ascertain what is already known in relation to a problem of interest, to develop a broad conceptual context into which a research problem will fit and to suggest ways to going about the business of conducting a study on a topic of interest.

Literature review done for the present study is presented under the following heading:

I. Occupational stress in general
II. Police stress
III. Laughter therapy in general
IV. Laughter therapy and stress
V. Humour in general

### I. OCCUPATIONAL STRESS IN GENERAL

Cavanaugh.M. A, et.al., (2008) A study was conducted to associate with two kinds of job demands or work circumstance, challenges and hindrance, are distinct phenomena that are differentially related to work outcomes. Specific hypothesis were derived from this general proposition and tested using a sample of 1,886 U.S managers and longitudinal data. Regression results indicate that challenge related stress is positively related to job satisfaction and negatively related to job search.

Agrawal. S, et.al., (2007) A study was planned to investigate the effect of age on occupational stress and job satisfaction among managers of different age groups. A sample in industrial managers working different large scale organisations was selected randomly for the present study. The occupational stress index and job descriptive index were, used to assess the level of stress and job satisfaction of the sample. The study reveals higher levels of stress and job satisfaction among managers of 25-35 years age than in the middle age 36-45 and the old age groups 46-55 years. The study also found that the age found to be negatively correlated with occupational stress and positively with job satisfaction.

Lazarus, et.al, (2005) the study conducted to determine influence of organisational variables (conflict, workload, and unfavourable work environment) on job stress among managerial persons and to examine whether this relationship varies according to the individuals level of neuroticism. Analysis of 285 responses using hierarchical regression revealed that there of the five organisational variables (conflict, blocked career, alienation) had significant effect on job stress, neuroticism was found to moderate effects on the three organisational stressors (alienation, workload and un favourable environment on job stress. In implications for the managerial practice and future research are discussed.

Danie I.C, (2000) The present study tested a model of occupational stress and coping strategies were predicted to proceeds and determine the perception of job stressors which in turn were proposed to have an impact on the mental and psychological well being of the individual and his/her job satisfaction. Data were collected from 235 professionals employed in diverse companies within the southern country area. The study consists of 167 variables designated to measure coping, organisational stressors, well being and job satisfaction. The results showed that the proposed model accounts for the observed variability in the data. Implications for conceptualising and coping with the dysfunctional outcomes associated with work place stress are discussed.

Robertson, et.al., (2000) A study of organisational climate, role stress and coping strategy amongst public sector executives. The sample sizes were 453 and variables under study was role stress, coping strategy and organisational climate. The findings of the study were role stress experienced was the general stress and the over load stress. Role erosion was the dominant stressor, followed by role isolation, resources inadequacy and personal inadequacy. Role stress was positively correlated with dysfunctional climate and avoidance coping strategy, where as negatively with functional climate.

Sadar.LG, et.al.,(1999) A study on occupational stress and coping pattern in an industry was conducted. The main focus of the study was to measure the occupational stressors and different coping strategies individuals adopt during stressful encounters. The sample consisted of 30 executives who suffered from stress. Both the groups were administered occupational stress index and coping check list. The result revealed that there is a significant difference between the two groups in the areas of work, role ambiguity, poor peer relations, low status, strenuous working conditions and powerlessness. The result pertaining to coping strategies reveal that there is a significant difference between action strategy and interpersonal strategy among the two groups.

## II. POLICE STRESS

Maia.D, et.al., (2009), conducted a study were to determine the current prevalence of post-traumatic stress symptoms (PTSS) in Brazilian police officers and to compare groups with and without PTSS in terms of associated morbidity. Police officers from an elite unit (n=157) were asked to fill out a socio-demographic questionnaire, the 12-item General Health Questionnaire and the Post-Traumatic Stress Disorder Checklist-Civilian Version. The latter's scores were used to establish the diagnoses of “full PTSD” and of “partial PTSD”. Prevalence rates of “full PTSD” and “partial PTSD” were 8.9% and 16%, respectively. Compared with the “no PTSD” group, police officers with “full PTSD” were five times more likely to be divorced

(21.6% vs. 4.3%, p=0.008), felt that their physical health was poorer (64.3% vs. 6%, p<0.001), had more medical consultations during the last 12 months [2.00 (±1.62) vs. 1.09 (±1.42), p=0.03] and reported more often lifetime suicidal ideation (35.7% vs. 5.2%, p=0.002). The sample was relatively small. A screening tool was employed instead of a semi-structured interview. The presence of "full PTSD" was associated with evidences of considerable morbidity. These findings may contribute to the development of effective policies aimed at the prevention and treatment of PTSD in law enforcement agents.

Maguen.S., et.al., (2009) conducted a study which examined the relationship between routine work environment stress and posttraumatic stress disorder (PTSD) symptoms in a sample of police officers (N = 180) who were first assessed during academy training and reassessed 1-year later. In a model that included gender, ethnicity, traumatic exposure prior to entering the academy, current negative life events, and critical incident exposure over the last year, routine work environment stress was most strongly associated with PTSD symptoms. It was found that routine work environment stress mediated the relationship between critical incident exposure and PTSD symptoms and between current negative life events and PTSD symptoms. Ensuring that the work environment is functioning optimally to protect them against the effects of duty-related critical incidents and negative life events outside police service.

West.C., et.al., (2008) conducted study to examine symptoms of depression and posttraumatic stress disorder (PTSD) among New Orleans Police Department (NOPD) personnel who provided law enforcement and relief services to affected communities following Hurricane Katrina. They conducted a cross-sectional survey of mental health outcomes related to personal and work-related exposures of police personnel 8 weeks after the Hurricane. Of the 912 police personnel who completed the questionnaire, 227 (26%) reported symptoms consistent with depression and 170 (19%) reported symptoms consistent with PTSD. Risk factors associated with PTSD include recovery of bodies, crowd control, assault, and injury to a family member. Depressive symptoms were associated with rare family contact, uninhabitable

home, isolation from the NOPD, assault, and injury to a family member. The conclusion of the study was police personnel reported symptoms of PTSD and depression associated with work-related and personal factors following Hurricane Katrina.

Carralho A, et.al., (2006) conducted a study on the prevalence of bruxism and emotional stress and the associated between them in Brazilian Police Officer, due to expose to stressful situations, and to assess the relationship between the type of work done by a police officer and the presence of bruxism and emotional stress. A cross sectional study was conducted at the military police of the state of Sao Paulo, Campinas, SP, Brazil. The sample included 394 male police officers (mean age = 35.5 years). Bruxism was diagnosed by the presence of aligned dental wear facets associated with the presence of one of the following signs or symptoms. Self report of tooth grinding, painful sensitivity of the masseter and temporal muscles, discomfort in the jaw musculature upon walking. The stress symptoms inventory (SSI) was applied to evaluate emotional stress. The type of work done by the police was classified as organizational or operational, the latter being assumed as the more stressful since it exposes the police officer to life risk. The results showed a prevalence of bruxism of 50.2% and a prevalence of emotional stress of 45.7%. The chi-square test indicated an association between stress and bruxism ($P < 0.05$). No significant association was found between emotional stress and type of work ($P = 0.382$) or between bruxism and work activity ($P – 0.611$). It could be concluded that emotional stress and type of work ($P = 0.382$) or between bruxim and work activity ($P = 0.611$). It could be concluded that emotional stress was associated with bruxism, indepently of the type of work done by police officers.

Collins .P.A, et al, (2003) conducted a study to examine the sources of stress-related symptoms within police officers and measure the prevalence of significant associated mental ill-health. A cross-sectional questionnaire survey of a population of 1206 police officers was performed to assess levels of strain associated with a series of potential home and work related stressors. Participants were then split into low and high scoring groups on the basis of a

General Health Questionnaire (GHQ) threshold score in order to identify those stressors most associated with mental ill-health effects. The results shown that the occupational stressors ranking most highly within the population were not specific to policing, but to organizational issues such as the demands of work impinging upon home life, lack of consultation and communication, lack of control over workload, inadequate support and excess workload in general. The high scoring group constituted 41% of the population and differed significantly from those with low scores in perception of all stressors, ranking both personal and occupational stressors more highly, and from personality constraints appeared significantly more 'stress-prone'. A significant association between gender and mental ill-health was found, with females more likely to score more highly on the GHQ than males. This study confirms previous findings of organizational culture and workload as the key issues in officer stress. Given that the degree of symptomatology appears to be worsening, management action is required. Further research is indicated within the police population into a possible increased susceptibility in female officers.

Chakraborthy.P.K. (2002) conducted a study on Armed forces personnel compared 22 patients who made suicidal acts with 21 randomly selected in-patients and 30 well adjusted controls. He observed that higher incidence of disciplinary problems, poor peer relations and poor authority relations, conflict between patients and their fathers are related more to psychiatric problems in general and specifically to attempted suicides. Persons who make suicidal gestures have difficulty with male authority figures and are impulsive and those who showed clear impulsive behavior, disciplinary problem and poorer peer and authority relations were discharged from service prematurely.

Basavanna.S., et.al., (1996) conducted a study, obtained data from 2,354 police personnel belonging to various ranks identified the psychiatric morbidity and the various factors contributing to their mental health problems using the 12 item General Health Questionnaire

and a six indices semi structure questionnaire developed to measure the factors responsible for work related stress in police personnel. They observed that 28.6% to 48% were screened positive for having a psychiatric disorder and after detailed psychiatric evaluation; psychiatric morbidity is established in 24.4% to 36.8% of the participants. Depressive disorders and Dysthymia are found to be the commonest (10% each) diagnoses followed by Anxiety disorders (in 3.48.7%) and Alcohol related problems (in 2.7%). It was observed that the Police personnel are under continuous and constant stress due to a number of factors operating in work and family and the common reasons for their Job dissatisfaction included extreme work load, extended duty hours, interpersonal relations between police men and lack of time with family etc. It was further recommended that police hospitals need to regularly assess mental health besides the physical health and the police personnel should be educated about coping strategies to deal with job stress.

Rao.G., et.al., (1996) conducted a study which is undertaken at the National Industrial Security Academy (NISA), Hyderabad with the objectives of assessing the psychiatric morbidity and the factors contributing to stress among the CISF personnel. A random stratified sample of 500 subjects stratified to include personnel from all ranks such as SI's, executive officials and constables are screened using the Goldberg's General Health Questionnaire. A detailed screening questionnaire adapted from Channabasavanna.S.M., et.al., (1996) to assess the stress and coping was used. Those who are screened positive are further evaluated using the mini-international neuropsychiatric interview, M.I.N.I. to confirm the psychiatric diagnosis and using detailed personal interviews the factors contributing to stress in the CISF personnel are identified. the results of the study have shown that personnel posted in stressful areas and of the rank of constables had perceived stress and more morbidity compared to those posted in non stressful area.

## III. LAUGHTER THERAPY IN GENERAL

Brutsche .M.H. et. al., (2008) conducted study on impact of laughter on air trapping in severe chronic obstructive lung disease. Static and dynamic hyperinflation is an important factor of exertional dyspnea in patients with severe COPD. This proof-of-concept intervention trial sought to study whether laughter can reduce hyperinflation through repetitive expiratory efforts in patients with severe COPD. For small groups of patients with severe COPD (n = 19) and healthy controls (n = 10) Pello the clown performed a humor intervention triggering regular laughter. Plethysmography was done before and up to 24 hours after intervention. Laughing and smiling were quantified with video-analysis. Real-time breathing pattern was assessed with the LifeShirt, and the psychological impact of the intervention was monitored with self-administered questionnaires. The intervention led to a reduction of TLC in COPD (p = 0.04), but not in controls (p = 0.9). TLC reduction was due to a decline of the residual volume. Four (22 [CI 95% 7 to 46] %) patients were > or = 10% responders. The frequency of smiling and TLC at baseline were independent predictors of TLC response. The humor intervention improved cheerfulness, but not seriousness nor bad mood. In conclusion, smiling induced by a humor intervention was able to reduce hyperinflation in patients with severe COPD. A smiling-derived breathing technique might complement pursed-lips breathing in patients with symptomatic obstruction.

Beckman .H. et. al., (2007), effect of workplace laughter groups on personal efficacy beliefs.This study measured the impact of a purposeful aerobic laughter intervention on employees' sense of self-efficacy in the workplace. Participants were 33 employees of a behavioral health center. They met for 15-minute sessions on 15 consecutive workdays and engaged in a guided program of non-humor dependent laughter. The primary outcome measure was the Capabilities Awareness Profile, a self-report self-efficacy questionnaire. Employees demonstrated a significant increase in several different aspects of self-efficacy, including self-regulation, optimism, positive emotions, and social identification, and they

maintained these gains at follow-up. Purposeful laughter is a realistic, sustainable, and generalizable intervention that enhances employees' morale, resilience, and personal efficacy beliefs

Stuber.M., et. al., (2007) conducted a study on laughter, Humor and Pain Perception in Children. Although there are many clinical programs designed to bring humor into pediatric hospitals, there has been very little research with children or adolescents concerning the specific utility of humor for children undergoing stressful or painful procedures. Laughter, a non-profit organization interested in the use of humor for healing, collaborated with UCLA to collect preliminary data on a sample of 18 children aged 7–16 years. Participants watched humorous video-tapes before, during and after a standardized pain task that involved placing a hand in cold water. Pain appraisal (ratings of pain severity) and pain tolerance (submersion time) were recorded and examined in relation to humor indicators (number of laughs/smiles during each video and child ratings of how funny the video was). Whereas humor indicators were not significantly associated with pain appraisal or tolerance, the group demonstrated significantly greater pain tolerance while viewing funny videos than when viewing the videos immediately before or after the cold-water task. The results suggest that humorous distraction is useful to help children and adolescents tolerate painful procedures. Further study is indicated to explore the specific mechanism of this benefit.

Hayashi. et. al., (2006), conducted a study on laughter modulates prorenin receptor gene expression in patients with type 2 diabetes. The purpose of this study was to assess whether laughter influences the expression of the receptor gene for prorenin that participates in the progression of diabetic nephropathy. Sixteen normal subjects and 23 patients with type 2 diabetes [12 nephropathy (−) and 11 nephropathy (+)] were recruited to examine the effects of laughter on the modulation of prorenin receptor gene expression. After watching a comedy show, laughter-induced changes in the levels of blood prorenin and the expression of prorenin receptor gene were analyzed by an antibody-activating direct enzyme kinetic assay and by

reverse transcriptase polymerase chain reaction, respectively.The result was, in diabetic patients, laughter decreased the level of blood prorenin [93.4–60.4 ng/l in nephropathy (−) patients, 196.6–166.7 ng/l in nephropathy (+) patients] and up-regulated the prorenin receptor gene [1.49-fold in nephropathy (−) patients, 1.46-fold in nephropathy (+) patients]. No significant changes in the expression of this gene were recognized in normal subjects.The study concluded that the beneficial effects of laughter on preventing the exacerbation of diabetic nephropathy are strongly suggested in terms of normalizing the expression of the prorenin receptor gene followed by reducing the level of blood prorenin.

Gelkopf .M. et. al., (2006) a conducted study on the effect of humorous movies on inpatients with chronic schizophrenic. The aim of the study to assess the impact of humorous movies on psychopathology, anxiety, depression, anger, social functioning, insight, and therapeutic alliance in schizophrenia inpatients. Twenty-nine psychiatric inpatients in open wards participated in the study. The study group viewed humorous and the control group viewed neutral movies daily for 3 months. Participants were assessed before and after viewing movies with the Positive and Negative Symptom Scale, Calgary Depression Scale, the State-Trait Anxiety Inventory, the State-Trait Anger Expression Inventory-2, the Multnomah Community Ability Scale, the Insight and Treatment Attitude Questionnaire, and the Working Alliance Inventory. Reduced levels of psychopathology, anger, anxiety, and depression symptoms and an improvement in social competence were revealed in the study group. No changes were observed in treatment insight or working alliance. Video films are a practical and cost-efficient means of entertainment that seem to have a positive effect on patient morale, mood, and mental status.

Antony.L., (2005) conducted a study to assess the quality of life among the elderly before and after laugher therapy in a selected old age home, Kerala. The researcher design used in this study was pre-experimental. Sample size was 30. Data collection tool, were validated and the reliability (r = 0.98). Pilot study was done to test the feasibility of the study.

The data collected were tabulated, analyzed and interpreted using EPI INFO 2000 software. The paired "t" test value revealed that there was a significant increase in the level of quality of life after laughter therapy among elderly clients ($P < 0.05$). It was joined that there was significant difference in all the domains of quality of life after implementation of laughter therapy.

Bennet.M.P, et.al., (2003) conducted a study on the effect of mirthful laughter on stress and natural killer cell activity; among cancer patients. The sample size was 33 healthy adult women selected randomized and experimental subjects viewed a humorous video while subjects in the distraction control group viewed a tourism video stress decreased for subjects in the laughter group, compared with those in the distraction group ($u\ 32 = 215.5$, $p = 0.004$). Amount of mirthful laughter correlated with post intervention stress measured for persons in the laugher group $r\ 16 = -0.655$, $p = 0.004$) subjects who scored greater than 25 on the humour response scale had increased immune function post interventions ($t\ 16 = 2.52$, $p = 0.037$) and compared with the remaining participants ($t32=32.1$, $p = 0.04$). Since laughter may reduce stress and improve natural killer cell activity.

Foley., et. al., (2002), conducted a study on effect of forced laughter on mood. This study examined the effect of a brief period of forced laughter on the mood of adults. Participants (N=17) rated their mood before and after 1 min. of forced laughter. Although the participants generally rated their mood as positive prior to the intervention, after forced laughter more participants rated positive affect significantly higher.

Reddy.V. et. al., (2002), conducted a study on sharing humour and laughter in autism and Down's syndrome. Everyday humour and laughter can tell us about children's ability to engage with and understand others. A group of 19 pre-school children with autism and 16 pre-school children with Down's syndrome, matched on non-verbal mental age, participated in a cross-sectional study. Parental reports revealed no group differences in overall frequencies of

laughter or laughter at tickling, peekaboo or slapstick. However, in the autism group, reported laughter was rare in response to events such as funny faces or socially inappropriate acts, but was common in strange or inexplicable situations. Reported responses to others' laughter also differed: children with autism rarely attempted to join in others' laughter and rarely attempted to re-elicit it through acts of clowning or teasing. Analysis of videotaped interactions also showed no group differences in frequencies of child or adult laughter. However, the children with autism showed higher frequencies of unshared laughter in interactive situations and lower frequencies of attention or smiles in response to others' laughter. Humour is an affective and cultural phenomenon involving the sharing of affect, attention and convention; children with autism show problems in some simple affective and mutual as well as joint attentional and cultural aspects of humorous engagement.

Olsson.H., et.al., (2002) conducted a study the essence of humour and its effects and functions. The purpose of this study to describe which categories can be included ins the term humour and the effects and functions that humour has on the people. The data were based on 20 interviews, nine of which were made with women 11 with men who had no formal connection to health services. Age ranged from 17-75 years and all the interviewers were from Sweeden. The research question was what does humour mean to you? The answer given labeled as laughter, happiness, unforeseen events, situations, real humours, jokes, plays, situation comedy and political satire. The categories were possibilities / obstacles and weapon / protection. We conclude the essence of humour can be categorized as possibilities / obstacles and weapon / protection.

Minden.P. (2002) did a study on humour as the focal point of treatment for forensic psychiatric patients. Framed as a qualitative care study based on constructirist notions, the research being reported evaluates the humor group, a unique treatment modality evoking therapeutic change by engaging male forensic psychiatric patients and nursing students in humorons activities. The group's meaning for patient health was investigated by cross-

analyzing data collected from patient and student questionnaire in-depth patient interviews, and neutralistic observations made by the researcher during the group's 4-year tenure. The humours group structure and format are offered as guides for undertaking similar attempts to rein in humour's healing potential in other settings and with other populations.

Tammentie.J.J., et.al., (2001) did a study on importance of humour to client nurse relationship. In this study they aims to describe the positive impact of humour on client- nurse relationship and an clients well being. The data consisted of focused interviews (n=8) and letters (n=5) received from nursing clients in response to an invitation published in a patient organization newsletter. The data were analyzed using the method of content analysis. The results suggest that humour helped the client to cope with difficult situations by offering a moment of rest and a new perspective on an altered life situation. Humour also helped clients to show their emotions and to preserve their dignity. In the nurse-client relationship, humour enabled the client to communicate criticism or to express themselves. Nurses can alleviate client's anxieties through humour, and humour can help nurse to cope.

Astedt, Kurki.P. (1994) conducted a study regarding humour in nursing care. In that study he is stating, humour is an integral part of every day life and therefore also a component of the care and treatment of patients in the modern health care system. Here they opted to use a qualitative approach in this study because the focus of interest was on issues that has received only little attention in earlier research. Nurses were presented with a set of unstructured, open-ended questions requiring short, essay type answers. The data obtained were analyzed using the qualitative method of content analysis. In the light of our findings here, humour can be described as a joice de vivre which is manifested in human interaction in the form of fun jocularity and laughter. Humour is a meaningful factor, both with regard to the interaction of nurse a patient. Humour also allows for more job satisfaction and better motivation. Research should be continued and intensified into the role and use of humour in everyday life and particularly in nursing care.

## IV. LAUGHTER THERAPY AND STRESS

Klatt M.D, (2009) A qualitative study was conducted among 50 individuals employed in various occupations in Eran. Individuals are divided as 15 workers, 15 managers, 9 guardians, 5dentists, 6 teachers. Provided laugh for 30mts and after each section asked to continue in work environment. The result shown that there was a great relief from the stress after laughter therapy.

Web M.D, (2009) Laughing 100 times a day gives the same cardiac out put as 10 minutes of aerobic exercise. While many experts are divided about whether laughter especially has medical benefits, all agree it doesn't hurt. Researcher conducted a unique study and proved that 10-15 minutes of concentrated laugh reduces stress.

Tan.S, (2007) A comprehensive literature review was undertaken which revealed an established body of work on both stress and humour. The study was conducted in America on the stress level of health professionals. In order to reduce the stress level, numbers of relaxation techniques and exercise programs have been used. Among these laughter is considered as the best stress busting.

Berk, (2006) Study done among the workers by simply providing to watching a humorous video. The researcher selected two group for this study experimental and control group. The researcher administered the humorous video to the experimental group and found that the stress level reduced in the experimental group and in control group no increase in the hormone level and reduction in stress level.

Tayor.D, (2005) Study used a small qualitative design to examine workers use of humorous coping skill. Open ended interview were used to document use of humour. Identified as humour as an important factor improves the coping skill among workers and it also improves the self esteem and reduces psychological symptoms related to work stress. The use of

humour as a coping mechanism to moderate the impact of stressful events on mood states and to improve the ability relaxes have been documented and analysed among workers.

Mathew.F.M, (2003) Study was conducted to assess the value of humour in current nursing practice. Using of laughter therapy in nursing practice helps to relive the work stress that associated with -low pay offered, intennittent shortages of nurses, high staff turnover, work overload and additional stresses associated at workplace. A hearty laugh can break down the barriers of embarrassment, unease and improves coping mechanisms. The result shows that current nursing practice laughter therapy helps to over came job related stress.

## V. HUMOUR IN GENERAL

Hsieh CJ, et.al., (2005) conducted a study to develop Chinese Humor Scale (CHS)" for the nursing profession and then test itsreliability and validity. The 405 individuals selected for participation in this study included nursing on-the-job students from a medical university and professional nurses practicing at four hospitals in north Taiwan. Researchers developed a list of 57 key humor measures which were filled out and returned by study participants. An evaluation of results using Cronbach's alpha coefficients demonstrated good consistency (alpha=.93) for the developed CHS. Intercorrelations amongst the four sub-scales were generally quite low, indicating each sub-scale measures dimensions relatively distinct from one another (r=.24 approximately .48, both p <.001). The CHS was tested using item analysis. The scale was constructed in accordance with exploratory factor analysis (EFA) (K.M.O.=.92). Thirty CHS items, categorized under the four indices of "humorous creativity", "tendency to laugh", "perceptivity to humor", and" humorous attitude", were found to explain 55.42% of total variances. The CHS was found to provide good validity using a content validity index (CVI) developed by five experts. The results of this study provide encouraging evidence for the construct validity and reliability of the proposed humor scale and support its application by nursing educators and clinicians to further test and assess concepts related to humor.

Astedt-Kurki P, et.al., (2001) conducted a to study was to investigate the occurrence ofhumour both between nurses and patients and among nursing staff. The data consisted of diaries written by nurses (n=16), which were analysed inductively using content analysis. Themain categories of humour between nurse and patient were nurse-based humour, co-operation-orientated humour and patient-orientated humour. Humour among staff consisted of the main category of resource-orientated humour. Theconsequences of humour between nurse and patient enabled them both to cope with various unpleasant procedures. It helped them to manage difficult situations and led to an improvement in the working climate. Humour among staff helped nurses tocope with their work and created a better atmosphere on the ward.

Simon JM. (1998), conducted a correlational descriptive study which examined the relationship between the uses of humour and health outcomes as measured by perceived health, life satisfaction, and morale in older adults. The sample of this pilot study consisted of 24volunteers from a senior citizen community centre who are ambulatory adults over 61 years old. Subjects were administered questionnaires which consisted of ademographic data sheet, the Situational Humour Response Questionnaire, Coping Humour Scale, Current Health Subscale, Life Satisfaction Index, and the Affect Balance Scale. The findings revealed significant (P less than 0.05) positive relationships between situational humour and perceived health (r = 0.43), and situational humour and morale (r = 0.38). Furthermore, there was a significant negative relationship between coping humour and perceived health (r = -0.46).These findings suggest that humour may be one phenomenon which influences the older adult's perception of perceived health, life satisfaction and morale and may assist in successful ageing. These preliminary findings support the need for further research to examine these relationships with a larger study.

# CHAPTER – III

# METHODOLOGY

Methodology is a systematic way to solve the research problem undertaken. Methodology for the study is defined as the way pertinent information is gathered in order to answer the research questions to analyse the research problem.

The present study was conducted to assess the stress among police personnel before and after aerobic laughter therapy in selected police station Kerala.

This chapter deals with description of different steps, which are undertaken by the researchers for the study. It includes the research approach, research design, variables, setting, population, sample size, sampling technique, sampling criteria, development of tool, description of tool, content validity, reliability, pilot study, data collection procedure, plan for data analysis and ethical consideration.

## RESEARCH APPROACH

Research approach is the most essential part of any research . the entire study was based on it. The research approach used in this study was an applied form of research to find out how well a programme, treatment, practice or policy was effective. In this study the effectiveness of aerobic laughter therapy on stress among police personnel were evaluated with police stress questionnaire

## RESEARCH DESIGN

It helps the investigator in the selection of the subject, identification of variables, their manipulation and control, observation to be made and types of statistical analysis to interpret the data.

In this study the investigator selected the pre experimental research design (one group pre test post test design). It is a relatively straight forward research design in which there is a treatment group without a control group (Fig. 2).

Stress among police personnel was measured by police stress questionnaire before and after aerobic laughter therapy. In the absence of a control group, subjects act as their own controls. The pre and post stress data were analysed for differences.

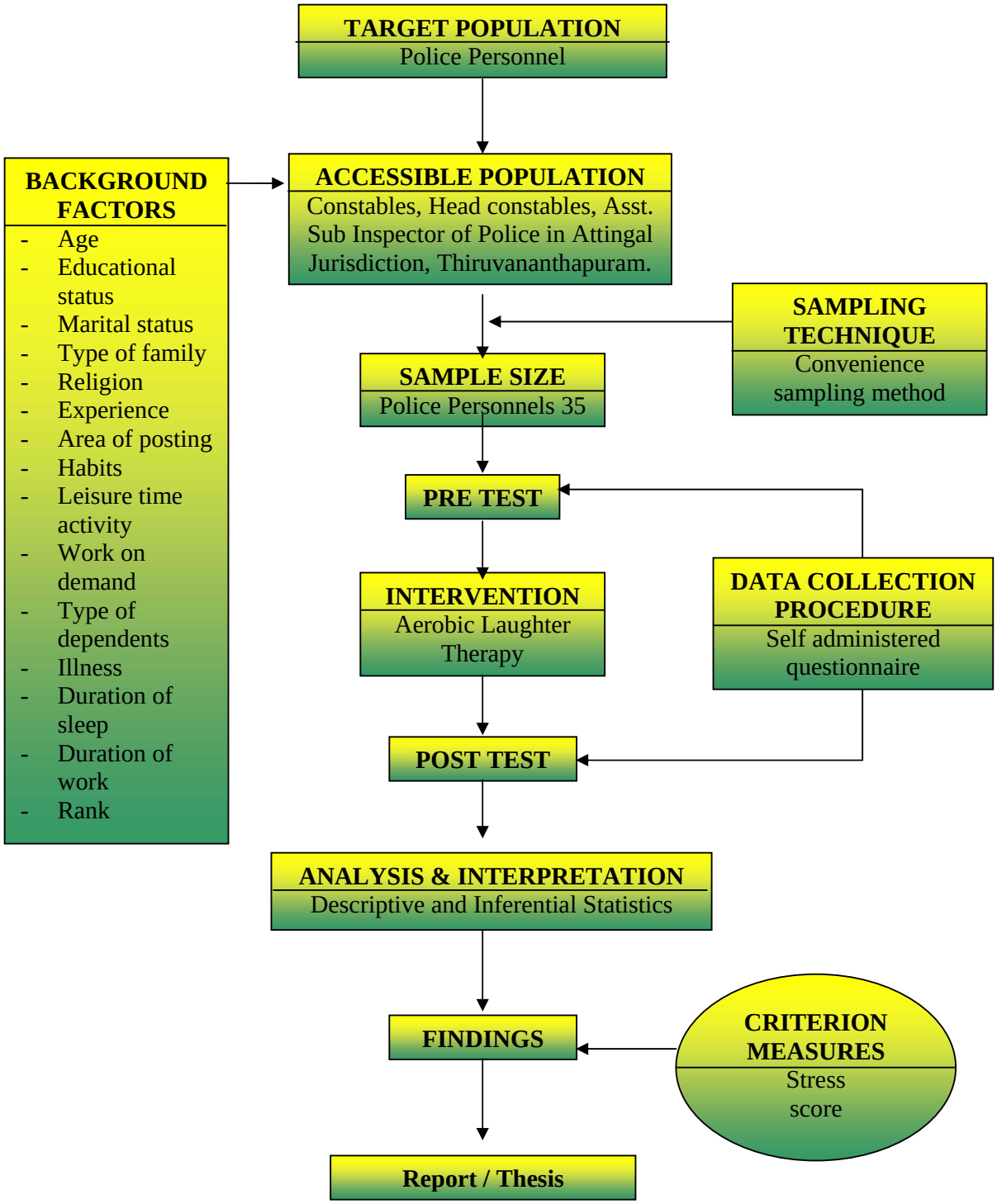


Fig. 2: SCHEMATIC REPRESENTATION OF RESEARCH DESIGN

RESEARCH DESIGN ON NOTATION

| *Group* | *Before* | *Interventions* | *After* |
|---|---|---|---|
| E | $O_1$ | X | $O_2$ |

E = Experimental Group

$O_1$ = Pre test on stress among police personnel.

X = Aerobic laughter therapy

$O_2$ = Post test on stress among police personnel.

## VARIABLES

The variables included in the study were,

Independent Variable : Aerobic laughter therapy

Dependent Variable : Stress among police personnel.

Associated Variable : Age, educational status, marital status, type of family, religion, experience, area of posting, habits, leisure time activity, work on demand, type of dependents, illness, duration of sleep, duration of work and rank.

## SETTING

The setting selected for the present study were, four police stations coming under Attingal Jurisdiction, Thiruvananthapuram.

## POPULATION

Target population: It refers to the population under study and the population to which the researchers wants to generalize the research findings. The target population of this study was the police personnel.

Accessible population: It refers to the part of the population that is available to the research. The accessible population in the study were the police personnel working under the Attingal Jurisdiction.

## SAMPLE AND SAMPLE SIZE

A sample is a portion of population of interest. It then consist of a subset of the units that is composed of the population.

Sample size is the number of elements of the population. The main purpose of the researcher is to obtain a sample enough to show significance yet be expedient and economical at the same time. Sample size is determined by the type of the study, nature of variables, level of significance, required, type of data, feasibility to conduct the study and the availability of samples.

In this study, selected samples were police personnel among selected police stations in Attingal Jurisdiction, Thiruvananthapuram. The sample size for the present study was 35 police personnel.

## SAMPLING TECHNIQUE

Sampling is an important step in the research process. It refers to the process of selecting portion of the population to represent the entire population. In this study convenience sampling method was used

## SAMPLING CRITERIA

The study samples were selected by following the inclusion and exclusion criteria.

### a) Inclusion criteria

- Male police personnel only.
- Police personnel who are available at the particular police station during the time of the study.
- Police who would practice laughter therapy for 14 days.
- Police personnel in all ranks except the sub inspectors.

### b) Exclusion criteria

- Police personnel not willing to participate.
- Police personnel those who were not in the service for the last 6 months.

## DESCRIPTION OF THE TOOL

The tool used in this study was standardized tool to assess the stress among police personnel. It consists of 3 sections.

Section 1: Background Factor: It consist of 15 items seeking information about age, educational status, marital status, type of family, religion, experience, area of posting, habits, leisure time activity, work on demand, type of dependents, illness, duration of sleep, duration of work and rank.

Section 2: Operational police stress questionnaire: The tool was a standard tool. It contains 20 items seeking to know the operational stress level among police personnel. The items was measured on a 7-point rating scale ranging from “No stress at all” to “A lot of stress”.

Section 3: Organizational police stress questionnaire: The tool was a standardized tool. It contains 20 items seeking to know the organizational stress level among police personnel. The items was measured on a 7-point rating scale ranging from "No stress at all" to "A lot of stress".

## SCORING

The stress among police personal were measured in terms of stress score. Each item has a maximum score of 7 & a minimum score 1. The highest score possible for operational police stress questionnaire is 140 & organizational police stress questionnaire is 140. The more the score the greater will be the stress.

## VALIDITY OF THE TOOL

Police stress was measured by the standardized questionnaire. However, item measuring the background factors were validated by 3 nursing experts, 1 psychiatrist, 1 psychologist & 1 psychiatric social worker. Suggestions were considered and modification of tool was done according to the opinion of experts.

The entire tool was translated in to Malayalam by Malayalam language experts. Language validity was established by retranslating the tool to English.

## RELIABILITY OF THE TOOL

Reliability of the tool was done by test – retest method. 5 samples were chosen from setting similar to the research setting and the tool was administered twice with the gap of 10 days. Reliability value was computed through the Spearman rank co-efficient. The reliability co-efficient was found to be r = 0.96, high. The tool was found to be highly reliable.

## PILOT STUDY

Talbot (1995) defined pilot study as the miniature of some part of actual study in which the instrument is administered to subjects drawn from the same population. It is the preliminary research conducted to test doments of a research design before an actual full – scale study begins. It is a small – scale version, or trial run done in preparation to major study.

The pilot study was conducted in similar setting in Thiruvananthapuram District. After obtained informed consent form the participants, a pilot study was conducted among 5 police personnel. The average time taken to administer one questionnaire was 40 minutes. The study was found to be feasible in terms of availability of samples, co-operation of the police personnel, time, distance, money and material.

## DATA COLLECTION PROCEDURE

The present study was conducted in the police station coming under Attingal Jurisdiction, Thiruvananthapuram. The data were collected for a period of 2 weeks, from 01.10.2009 to 30.10.2009.

Prior permission from the authority was sought and obtained. The study samples were selected by convenience sampling method. A total of 42 police personnel were recruited in the study based on sample selection criteria. The objectives and purposes of the study was explained and confidentiality was maintained. Informed consent was taken from the study samples. Pre test was done by administration police stress questionnaire. Then the aerobic laughter therapy were taught in small groups by the researcher. It was ensured that each participant was able to perform aerobic laughter therapy independently. The group was

directed to practice the aerobic laughter therapy for 14 days. After 14 days post test with police stress questionnaire was repeated. There was an attrition of 7 subjects due to non-compliance or absence during post test. All the other 35 members in the experimental group completed the 2 weeks aerobic laughter therapy. The tool was edited for completion.

## PLAN FOR DATA ANALYSIS

The data collected from the subjects were analyzed by suing both descriptive and inferential statistical methods. Statistical analysis was done by SPSS version 10. A probability of less than 0.05 was considered to be statistically significant. The plan of data analysis was as follows:

1. To organize the data in the master sheet. (Excel Sheet)
2. Frequency and percentage of samples were used for analysis of background variables.
3. Mean score and "t" test were used to analyze data on police stress before and after aerobic laughter therapy police personnel.
4. The association between the mean difference in relation to selected factors were analyzed using linear regression.

## ETHICAL CONSIDERATION

The research committee had approved the area of the study and research objectives. Each individual client was informed about the purpose of the study and consent was obtained from each participant. Confidentiality was promised and ensured. The client had the freedom to leave the study at his will without assigning any reason. Prior permission was also sought and obtained from the office of, the superintendent of Police (Rural), Thiruvananthapuram District.

# CHAPTER – IV

## DATA ANALYSIS AND INTERPRETATION

Analysis and interpretation of data of this study was done using descriptive and inferential statistics. Analysis of data was done using SPSS package version 10.

The objectives of the study were

1. To assess the stress among police personnel before and after aerobic laughter therapy in selected police station, Kerala.
2. To test the association between the mean difference in stress and selected factors among police personnel in selected police station, Kerala.

The collected data were edited, tabulated, analysed and the findings were presented in the form of tables and diagrams under the following sections.

Section I : Data on background factors of police personnel.

Section II : Data on stress among police personnel before and after aerobic laughter therapy.

Section III : Data on association between the mean difference in stress and selected factors among police personnel.

SECTION - I: DATA ON BACKGROUND FACTORS OF POLICE PERSONNEL

TABLE – 1

Frequency and percentage distribution of police personnel regarding background factors.

N = 35

| *Background factors* | *Frequency* | *Percentage* |
|---|---|---|
| Age in years | | |
| a) <25 years | 0 | 0% |
| b) 25-35 years | 6 | 17.1% |
| c) >35 years | 29 | 82.9% |
| Educational Status | | |
| a) Higher secondary education | 20 | 57.1% |
| b) Graduate | 14 | 40.0% |
| c) Post graduate | 1 | 2.9% |
| Marital Status | | |
| a) Married | 32 | 91.4% |
| b) Unmarried | 3 | 8.6% |
| Type of family | | |
| a) Nuclear | 31 | 88.6% |
| b) Joint | 4 | 11.4% |
| Religion | | |
| a) Hindu | 23 | 65.7% |
| b) Christian | 4 | 11.4% |
| c) Muslim | 8 | 22.9% |
| Leisure time activity | | |
| a) Reading books | 2 | 5.7% |

| *Background factors* | *Frequency* | *Percentage* |
|---|---|---|
| b) Watching television | 19 | 54.3% |
| c) Games | 4 | 11.4% |
| d) Others | 10 | 28.6% |
| Type of work demand | | |
| a) Out door work only | 1 | 2.9% |
| b) Police station work only | 11 | 31.4% |
| c) Both out door and police station work | 23 | 65.7% |
| Type of dependants | | |
| a) Child(ren) or spouse | 32 | 91.4% |
| b) Parents or siblings | 2 | 5.7% |
| c) None of the above | 1 | 2.9% |
| Duration of work | | |
| a) More than 8 hours per day | 35 | 100% |

Table I reveals the frequency and percentage distribution of background factors of police personnel such as age in years, educational status, marital status, type of family, religion, leisure time activity, type of working demand, type of dependants and duration of work.

Regarding age, majority of police personnel 29 (82.9%) were in the age group of more than 35 years and least 6 (17.1%) were in the age group between 25 & 35.

Regarding the educational status, majority of the police personnel 20 (57.1%) had higher secondary education, and least 1 (2.9%) had post graduate education.

Regarding the marital status, majority of police personnel 32 (91.4%) were married and the rest 3(8.6%) were unmarried.

Regarding to the type of family, majority of police personnel 31 (88.6%) belonged to nuclear family and least 4 (11.4%) were coming from joint family.

Regarding the religion, majority of the police personnel 23 (65.7%) were Hindus while 8 (22.9%) were Muslims and least 4 (11.4%) were Christians.

Regarding the leisure time activity, majority of the police personnel 19 (54.3%) were watching television and least 2 (5.7%) were reading books.

Regarding to the working demand, majority of police personnel 23 (65.7%) having both outdoor and police station work, 11 (31.4%) having police station work only and least 1 (2.9%) were having out door work only.

Regarding the type of dependants, majority of police personnel 32 (91.4%) having children or spouse as dependants, 2 (5.7%) having parents or siblings as dependants and least 1 (2.9%) having no dependants.

Regarding the duration of work, all the police personnel 35 (100%) participated in the study having more than 8 hours per day duty.

It was inferred that the majority of police personnel were aged more than 35 years, higher secondary education, married, belonged to nuclear family, Hindus, watching television, having both outdoor and police station work, having children or spouse as dependants and had more than 8 hours work per day.

Figure 3, reveals the frequency and percentage distribution of police personnel regarding experience.

Regarding experience, majority of police personnel 23 (65.7%) having more than 15 years experience and least 3 (8.6%) having 1-5 years experience.

It was inferred that majority of police personnel were having more than 15 years experience.

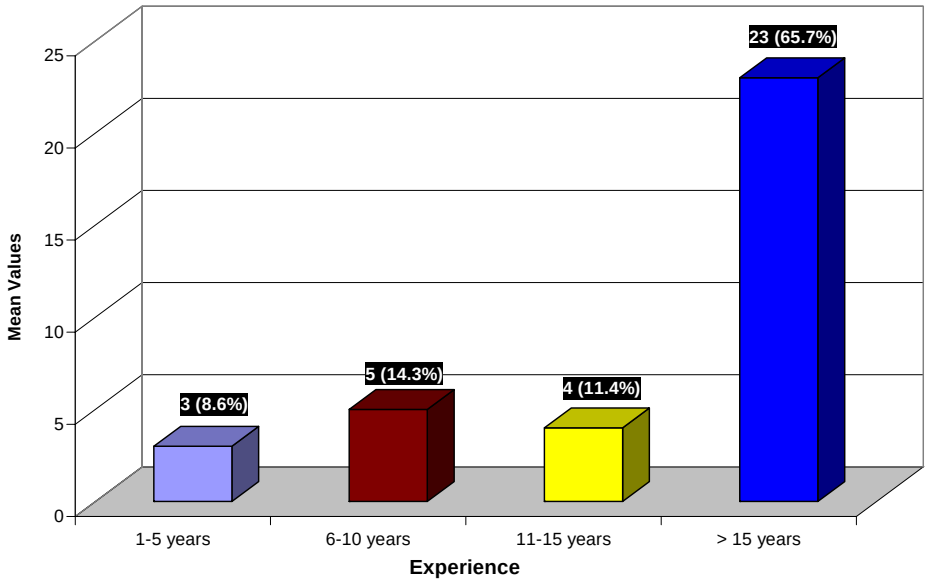


Fig. 3: Frequency and percentage distribution of police personnel regarding experience

Figure 4, reveals the frequency and percentage distribution of police personnel regarding area of posting.

Regarding area of posting, majority of police personnel 22 (62.9%) posted in rural areas and least 13 (37.1%) posted in semi urban areas.

It was inferred that majority of police personnel were posted in rural areas.

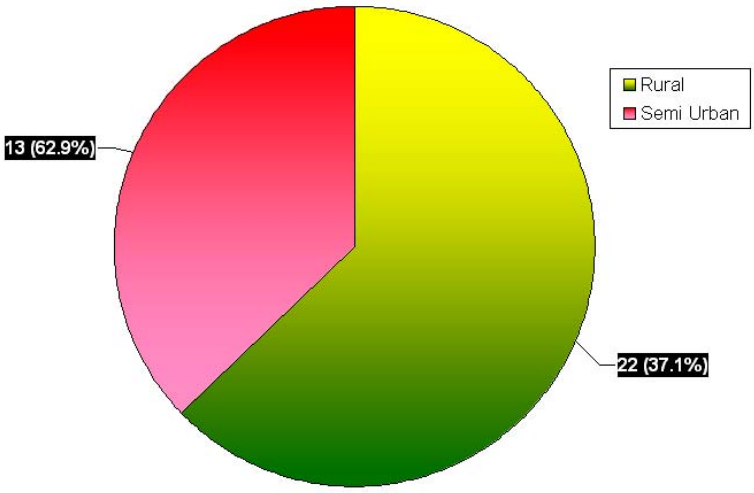


Fig. 4: Frequency and percentage distribution of police personnel regarding area of posting

Figure 5, reveals the frequency and percentage distribution of police personnel regarding their habits.

Regarding their habits, majority of police personnel 12 (34.3%) were no drinking and smoking habits and 1 (2.9%) were any other habits.

It was inferred that majority of police personnel were not drinkers or smokers.

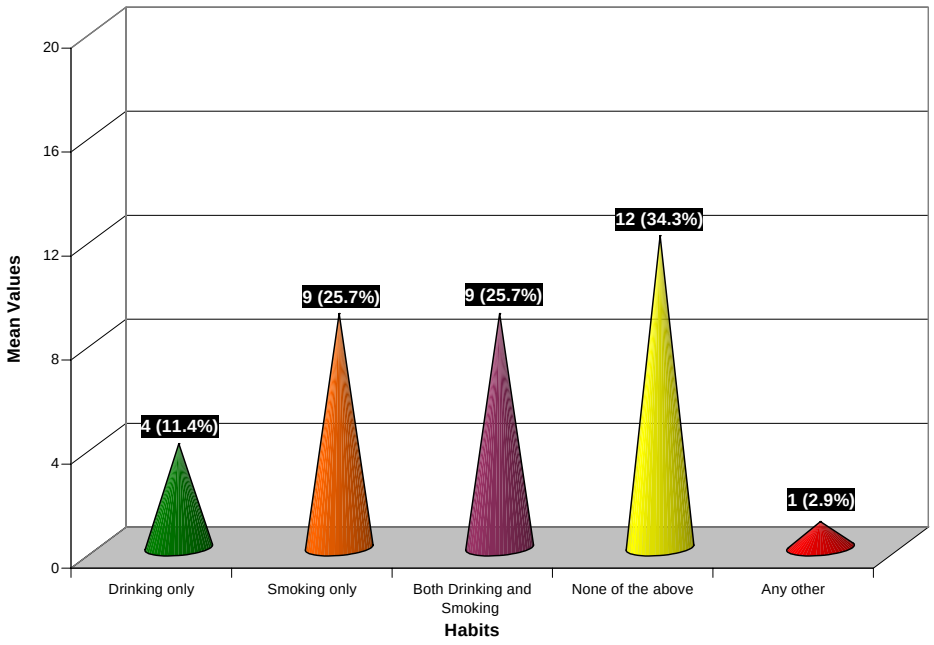


Fig. 5: Frequency and percentage distribution of police personnel regarding their habits

Figure 6, reveals the frequency and percentage distribution of police personnel regarding their illness such as asthma, diabetes and hypertension.

Regarding their illness, majority of police personnel 14 (40%) were having 2 or more disease and least 2 (5.7%) had disease other than asthma, diabetes and blood pressure.

It was inferred that majority of police personnel had any 2 or more disease, out of asthma, diabetes and blood pressure.

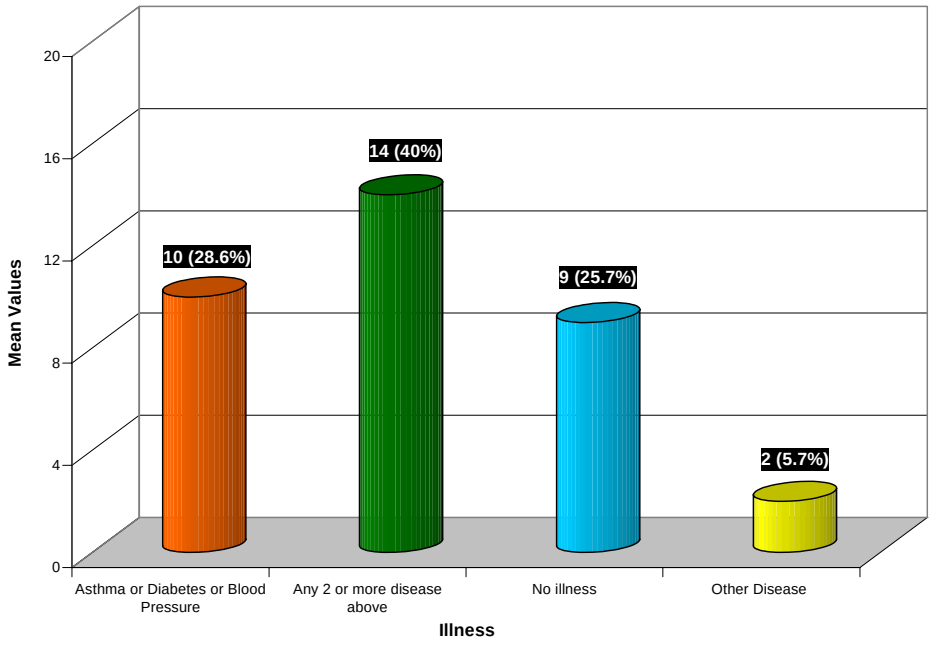


Fig. 6: Frequency and percentage distribution of police personnel regarding their illness.

Figure 7, reveals the frequency and percentage distribution of police personnel regarding duration of sleep.

Regarding their duration of sleep, majority of police personnel 23 (65.7%) were having a sleep less than 8 hours and least 12 (34.3%) were having a sleep 8 hours.

It was inferred that majority of police personnel were having less than 8 hours sleep.

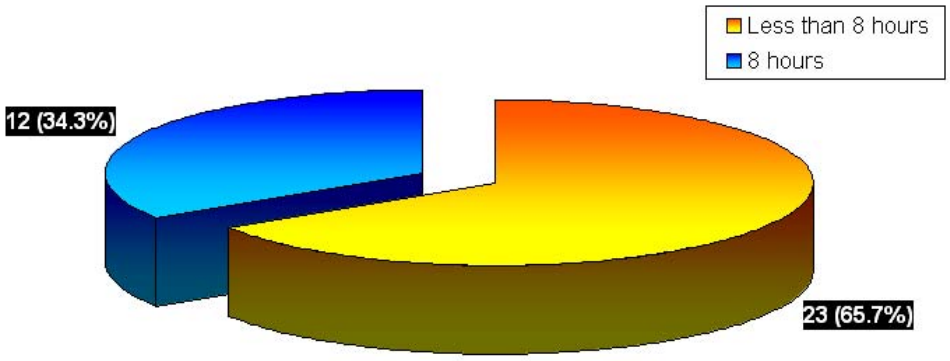


Fig. 7: Frequency and percentage distribution of police personnel regarding duration of sleep.

Figure 8, reveals the frequency and percentage distribution of police personnel regarding the rank of police personnel.

Regarding the rank of police personnel, majority of police personnel 15 (42.9%) were constables and least 6 (17.1%) were assistant sub inspector of police.

It was inferred that majority of police personnel were constables.

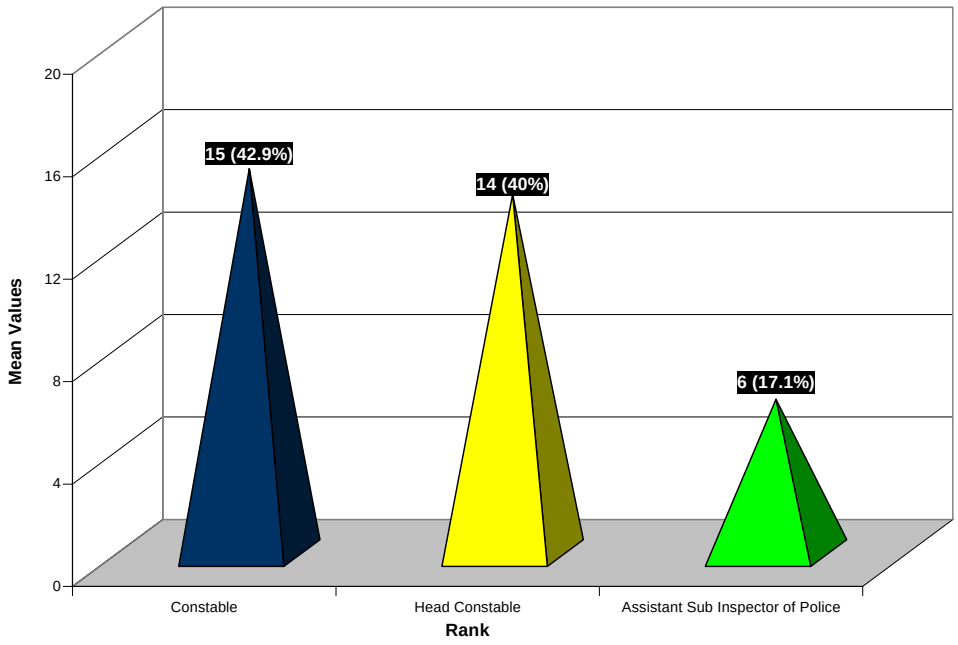


Fig. 8: Frequency and percentage distribution of police personnel regarding the rank of police personnel.

## SECTION – II: DATA ON STRESS AMONG POLICE PERSONNEL BEFORE AND AFTER AEROBIC LAUGHTER THERAPY

For the purpose of the study, the following null hypothesis was stated.

$H_{01}$ : There will be no significant difference in the stress among police personnel before and after aerobic laughter therapy in selected police station, Kerala.

TABLE – 2

Mean, SD, mean difference and 't" value on operational stress scores before and after aerobic laughter therapy

| *Operational Stress* | *Mean* | *SD* | *Mean Difference* | *"t" value* |
|---|---|---|---|---|
| Pre Test | 99.77 | 12.05 | 3.14 | 4.597 (P < 0.001) S |
| Post Test | 96.63 | 10.36 | | |

S = Significant

Table 2, reveals the effectiveness of aerobic laughter therapy on operational police stress.

The mean pre test operational stress score 99.77 (SD = 12.05) was higher than the mean post test operational stress 96.63 (SD = 10.36) among police personnel. The obtained "t" value on operational stress scores before and after aerobic laughter therapy, t = 4.597 (P < 0.001) was significant.

It was inferred that the aerobic laughter therapy was significantly effective to reduce the operational police stress.

TABLE – 3

Mean, SD, mean difference and 't" value on organizational stress scores before and after aerobic laughter therapy

| *Organizational Stress* | *Mean* | *SD* | *Mean Difference* | *"t" value* |
|---|---|---|---|---|
| Pre Test | 96.97 | 13.15 | -0.43 | -0.363 (P < 0.001) S |
| Post Test | 97.40 | 12.02 | | |

S = Significant

Table 3, reveals the effectiveness of aerobic laughter therapy on organizational police stress.

The mean pre test organizational stress score 96.97 (SD = 13.15) was less than mean post test organizational stress 97.40 (SD = 12.02) among police personnel. The obtained "t" value on organizational stress scores before and after aerobic laughter therapy t = -0.363 (P < 0.001) was significant.

It was inferred that the aerobic laughter therapy was not effective to reduce the organizational police stress.

SECTION - III: DATA ON ASSOCIATION BETWEEN THE MEAN DIFFERENCE IN STRESS AND SELECTED FACTORS AMONG POLICE PERSONNEL.

For the purpose of the study, the following null hypothesis was stated.

$H_{02}$ : There will be no significant association between mean difference in stress and selected factors among police personnel in selected police station, Kerala.

TABLE – 4

Standardized co-efficient and "t" value regarding the mean difference in operational police stress and selected factors among police personnel based on linear regression.

(N = 35)

| *Selected factors* | *Standardized coefficient(beta)* | *"t" value* | *Significance (P)* |
|---|---|---|---|
| Age in years | 0.009 | 0.019 | 0.985 (NS) |
| Educational status | -0.233 | -0.787 | 0.441 (NS) |
| Marital status | -0.058 | -0.076 | 0.940 (NS) |
| Type of family | 0.074 | 0.245 | 0.809 (NS) |
| Religion | 0.073 | 0.316 | 0.755 (NS) |
| Year of experience | 0.381 | 0.482 | 0.635 (NS) |
| Area of posting | 0.108 | 0.320 | 0.753 (NS) |
| Habits | -0.145 | -0.491 | 0.629 (NS) |
| Leisure time activity | 0.359 | 1.191 | 0.248 (NS) |
| Type of working demand | 0.128 | 0.459 | 0.651 (NS) |
| Type of dependants | 0.166 | 0.248 | 0.806 (NS) |
| Illness | 0.105 | 0.343 | 0.735 (NS) |
| Duration of sleep | 0.080 | 0.303 | 0.765 (NS) |
| Rank | -0.326 | -0.738 | 0.469 (NS) |

Table 4, reveals the standardized coefficients and "t" values regarding the mean difference operational police stress and selected factors among police personnel based on linear regression.

The obtained 't" values regarding selected factors such as age t = 0.019 (P = 0.985), educational status t = -0.787 (P = 0.441), marital status t = -0.076 (P = 0.940), type of family t = 0.245 (P = 0.809), religion t = 0.316 (P = 0.755), experience t = 0.482 (P = 0.635), area of posting t = 0.320 (P = 0.753), habits t = -0.491 (P = 0.629), leisure time activity t = 1.191 (P = 0.248), type of working demand t = 0.459 (P = 0.651), type of dependents t = 0.248 (P = 0.806), illness t = 0.343 (P = 0.735), duration of sleep t = 0.303 (P = 0.765), rank t = -0.738 (P = 0.469) and the mean difference in operational police stress were not significant (P > 0.05).

It was inferred that the laughter therapy was independently effective of all selected factors in reducing operational stress among police personnel.

TABLE – 5

Standardized coefficient and "t" value regarding the mean difference in organizational police stress and selected factors among police personnel based on linear regression.

(N = 35)

| *Selected factors* | *Standardized coefficient(beta)* | *"t" value* | *Significance (P)* |
|---|---|---|---|
| Age in years | 0.140 | 0.412 | 0.685 (NS) |
| Educational status | -0.246 | -1.134 | 0.270 (NS) |
| Marital status | 0.133 | 0.238 | 0.814 (NS) |
| Type of family | 0.061 | 0.276 | 0.785 (NS) |
| Religion | -0.318 | -1.876 | 0.075 (NS) |
| Year of experience | -0.994 | -1.712 | 0.102 (NS) |
| Area of posting | 0.063 | 0.256 | 0.801 (NS) |
| Habits | 0.425 | 1.959 | 0.064 (NS) |
| Leisure time activity | -0.405 | -1.833 | 0.082 (NS) |
| Type of working demand | 0.332 | 1.627 | 0.119 (NS) |
| Type of dependants | -0.150 | -0.305 | 0.763 (NS) |
| Illness | 0.225 | 1.005 | 0.327 (NS) |
| Duration of sleep | 0.157 | 0.805 | 0.431 (NS) |
| Rank | 0.832 | 2.569 | 0.018 (S) |

Table 5, reveals the standardized coefficients and "t" values regarding the mean difference organizational police stress and selected factors among police personnel based on linear regression

The obtained ‘t” values regarding selected factors such as age t = 0.412 (P = 0.685), educational status t = -1.134 (P = 0.270), marital status t = 0.238 (P = 0.814), type of family t = 0.276 (P = 0.785), religion t = -1.876 (P = 0.075), experience t = -1.712 (P = 0.102), area of posting t = 0.256 (P = 0.801), habits t = 1.959 (P = 0.801), leisure time activity t = -1.833 (P = 0.082), type of working demand t = 1.627 (P = 0.119), type of dependents t = 0.305 (P = 0.763), illness t = 1.005 (P = 0.327), duration of sleep t = 0.805 (P = 0.431), and the mean difference in operational police stress were not significant (P > 0.05).

However, the obtained “t” value regarding rank of police personnel t = 2.569 (P = 0.018) was significantly associated with the mean difference in organizational police stress (P < 0.05).

It was inferred that the rank of police personnel independently influenced the organizational police stress.

# CHAPTER – V

# SUMMARY, FINDINGS, DISCUSSION, IMPLICATIONS, LIMITATIONS, RECOMMENDATIONS AND CONCLUSION

## SUMMARY

The primary aim of the present study was to assess the stress before and after aerobic laughter therapy among police personnel.

The objectives of the study were,

1. To assess the stress among police personnel before and after aerobic laughter therapy in selected police station, Kerala.
2. To test the association between the mean difference in stress and selected factors among police personnel in selected police station, Kerala.

The study attempted to examine the following hypothesis:

$H_1$ : There will be a significant difference in the stress among police personnel before and after aerobic laughter therapy in selected police station, Kerala.

$H_2$ : There will be a significant association between the mean difference in stress and selected factors among police personnel in selected police station, Kerala.

The review of related literature enabled the investigator to develop the conceptual framework, tool, and methodology. Literature review was organized as follows: (i) occupational stress in general, (ii) the police stress, (iii) laughter therapy in general (iv) laughter therapy and stress and (v) humour in general.

The conceptual framework of this study was based on Bertalanffy's general system theory. The research approach used in this study was a pre-experimental research design, one group pre test, post test design. Independent variable in the study was aerobic laughter therapy and dependent variable was stress among police personnel. Associate variables were age, educational status, marital status, type of family, religion, experience, area of posting, habits, leisure time, activity, working demand, type of dependents, illness, duration of sleep, duration of work and rank of police personnel.

The tool used in this study was a standardized structured questionnaire on stress among police personnel. [Mc Creary.D.R. and Thompson.M.M. (2006)].

The content validity of the tool was done by six experts. The reliability of the tool was done by test-retest method and the computed reliability co-efficient r = 0.96, was high.

Pilot study was conducted among five police personnel at Anchuthengu police station under Attingal Jurisdiction and the study was found to be feasible.

Main study was conducted at four police stations coming under Attingal Jurisdiction and a total of 35 police personnel were selected in the study, using convenience sampling method. The objectives and purposes of the study were explained and confidentially was maintained. Informed consent was taken from the study samples. Pretest was done using the questionnaire. The aerobic laughter therapy were taught in small groups. After 14 days, post test was given. The data gathered were analysed & interpreted based on the objectives by descriptive and inferential statistics using SPSS Version 10. A probability of less than 0.05 was considered to be significant.

## CHARACTERISTICS OF THE STUDY SAMPLES

Majority of the police personnel were aged more than 35 years 29 (82.9%), had higher secondary education 20 (57.1%), married 32 (91.4%), belonged to nuclear family 31 (88.6%), Hindus 23 (65.7%), more than 15 years of experience 23 (65.7%), posted in rural areas 22 (62.9%), not drinkers or smokers 12 (34.3%), watching television 19 (54.3%), both outdoor and police station work 23 (65.7%), children or spouse as dependants 32 (91.4%), 2 or more diseases 14 (40%), less than 8 hours sleep 23 (65.7%), more than 8 hours per day work 35 (100%) and constables 15 (42.9%). That is the characteristics of the study sample.

## FINDINGS

The major findings of the study were presented based on the objectives of the study.

### Objective - 1: To assess the stress among police personnel before and after aerobic laughter therapy in selected police station, Kerala.

- The aerobic laughter therapy was significantly effective to reduce the operational police stress. $t = 4.597$ ($P < 0.001$).
- The aerobic laughter therapy was not effective to reduce the organizational police stress. $t = -0.363$ ($P < 0.001$).

### Objective – 2: To test the association between the mean difference stress and selected factors among police personal in selected police station, Kerala.

- There was no significant association between the mean difference in operational police stress and age $t= 0.019$ ($p > 0.05$), educational status $t = -0.787$ ($p> 0.05$),

marital status t = -0.076 (p> 0.05), type of family t = 0.245 (p>0.05), religion t = 0.316 (p> 0.05), experience t = 0.482 (p>0.05), area of posting t = 0.320 (p> 0.05), habits t = -0.491 (p> 0.05), leisure time activity t = 1.191 (p>0.05), type of work demand t = 0.459 (p>0.05), type of dependents t = 0.248 (p>0.05), illness t = 0.343 (p> 0.05), duration of sleep t =0.303 (p>0.05), rank t = -0.738 (p> 0.05) among police personal in selected police station, Kerala.

- There was significant association between the mean difference organizational police stress and rank t = 2.569 (P < 0.05) among police personnel in selected police station, Kerala.
- There was no significant association between the mean difference organizational police stress and age t = 0.415 (P > 0.05), educational status t = -1.134 (P > 0.05), marital status, t = 0.238 (P > 0.05), religion t - -1.876 (P > 0.05), experience t = -1.712 (P > 0.05), area of posting t = 0.256 (P > 0.05), habits t = 1.959 (P > 0.05), leisure time activity t = -1.833 (P > 0.05), type of work demand t = 1.627 (P > 0.05),, type of dependents t = 0.305 (P > 0.05), illness t = 1.005 (P > 0.05), duration of sleep t = 0.805 (P > 0.05), among police personnel in selected police station, Kerala.

## DISCUSSION

The results of the study has been discussed according to the study findings:

### Findings -1: Findings on stress before and after aerobic laughter therapy among police personnel.

- The aerobic laughter therapy was significantly effective to reduce the operational police stress. t = 4.597 (P < 0.001).
- The aerobic laughter therapy was not effective to reduce the organizational police stress. t = -0.363 (P < 0.001).

The above findings were supported by studies conducted by Klatt.M.D., (2009) the result shown that there was a great relief from the stress after laughter therapy and Web.M.D. (2009) results proved that 10-15 minutes of aerobic exercise and laugh significantly reduced stress.

Objective – 2: Findings on association between the mean difference in stress among police personnel after aerobic laughter therapy and their selected factors.

- There was no significant association between the mean difference operational police stress and age t = 0.019 (p > 0.05), educational status t = -0.787 (p> 0.05), marital status t = -0.076 (p>0.05), type of family t = 0.245 (p>0.05), religion t = 0.316 (p> 0.05), experience t = 0.482 (p>0.05), area of posting t = 0.320 (p> 0.05), habits t = -0.491 (p> 0.05), leisure time activity t = 1.191 (p>0.05), type of work demand t = 0.459 (p>0.05), type of dependents t = 0.248 (p>0.05), illness t = 0.343 (p> 0.05), duration of sleep t =0.303 (p>0.05), rank t = -0.738 (p> 0.05) among police personal in selected police station, Kerala.
- There was significant association between the mean difference in organizational police stress and rank t = 2.569 (P < 0.05) among police personnel in selected police station, Kerala.
- There was no significant association between the mean difference in organizational police stress and age t = 0.415 (P > 0.05), educational status t = -1.134 (P > 0.05), marital status, t = 0.238 (P > 0.05), religion t = -1.876 (P > 0.05), experience t = -1.712 (P > 0.05), area of posting t = 0.256 (P > 0.05), habits t = 1.959 (P > 0.05), leisure time activity t = -1.833 (P > 0.05), type of work demand t = 1.627 (P > 0.05),, type of dependents t = 0.305 (P > 0.05), illness t = 1.005 (P > 0.05), duration of sleep t = 0.805 (P > 0.05), among police personnel in selected police station, Kerala.

The above findings were supported by studies conducted by Maia.D., et.al., (2009) compared with the "no PTSD" group, police officers with "full PTSD" were five times more likely to be divorced p = 0.008, felt that their physical health was poorer P < 0.001, had more medical consultations during the last 12 months p = 0.03 and reported more often life time suicidal ideation p = 0.002, Cavanaugh.M.A., et.al., (2008) regression results indicated that challenge related stress is positively related to job satisfaction and negatively related to job search, Agrawal.S., et.al., (2007) the study reveals higher levels of stress and job satisfaction among managers of 25-35 years age and the study also found that the age found to be negatively correlated with occupational stress and positively with job satisfaction and Lazarus, et.al., (2005) study revealed that there of the five organizational variables (conflict, blocked career, alienation) had significant effect on job stress, neuroticism was found to moderate effects on the three organizational stressors (alienation, workload and unfavourable environment on job stress).

## IMPLICATIONS

The findings of the study have implications in nursing practice.

### Nursing Practice

- Aerobic laughter therapy reduced operational stress among police personnel. Therefore aerobic laughter therapy should be used to reduce the work stress.
- Employees can use aerobic laugher therapy to reduce stress.
- Police can be made to incorporate aerobic laugher therapy as a daily routine with the parade.
- Organizational stress was not reduced by aerobic laugher therapy because of rank. Therefore care must be taken to reduce the stress between the rank in police personnel.

## LIMITATIONS

- Study did not have control group
- The period of study was very limited.
- The period of laughter therapy was limited.

## RECOMMENDATIONS

- Same study can be conducted with large sample groups.
- Lady police personnel can also include.

## CONCLUSION

The following conclusions were drawn from the findings of the study.

- Operational stress reduce after aerobic laughter therapy. Rank was significantly associate with the organization stress. Therefore Aerobic laughter therapy can be use in reducing work stress and not the organizational stress

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# APPENDIX – I

## LETTER SEEKING PERMISSION FOR CONTENT VALIDITY

From,

**30083644**
II year M. Sc (Nursing),
Annai J. K. K. Sampoorani Ammal college of Nursing,
Komarapalayam- 638183.
Namakkal dt

To,

Through
The Dean
Annai J.K.K.Sampoorani Ammal college of Nursing
Komarapalayam – 638183.
Namakkal (DT).

DEAN
Annai J.K.K.Sampoorani
Ammal College of Nursing
Komarapalayam - 638 183.

Respected Sir/Madam,

**(Sub: Requisition for opinion and suggestion of experts for content validity).**

I am, **30083644** II Year M.Sc (N) student of mental health Nursing specialty studying at Annai J.K.K.Sampoorani Ammal college of Nursing, Komarapalayam.

I have selected the following topic for research "**A study to assess the stress among police personnel before and after aerobic laughter therapy in selected police station kerala.**" in partial fulfillment of the requirement for the award of the Degree of Master of Nursing under the Tamilnadu Dr.MGR Medical University, Chennai.

Here with I have enclosed the tool for its content validity and request you kindly examine the tool and give your valuable opinion and suggestions.

Thanking you

Date:
Place: Komarapalayam.

Yours sincerely,
**30083644**

# APPENDIX – II

## CONTENT VALIDITY CERTIFICATE

I hereby certify that I have validated the tool of 30086344, M.Sc., (N), student who is undertaking "A study to assess the stress among police personnel before and after aerobic laughter therapy in selected police station, Kerala."

Place: Komarapalayam. Signature of the Expert

Date: Designation

# APPENDIX – III

## LIST OF EXPERTS

1. Dr.Mrs.TAMILMANI, M.Sc., (N),
   Principal,
   Annai JKK Sampoorani Ammal College of Nursing,
   Komarapalayam.

2. Dr.S.MUNIRAJU, MBBS., DPM.,
   Senior Civil Surgeon,
   Psychiatrist,
   Govt. Head Quarters Hospital,
   Erode.

3. Mr.ARVIN BABU, M.Sc., (N),
   Principal,
   Dhanvantri College of Nursing,
   27, Poonkundranar Street,
   Karungalpalayam,
   Erode – 638 003.

4. Ms.SOPHIA, M.Sc., (N),
   Lecturer,
   Department of Psychiatry,
   Annai JKK Sampoorani Ammal College of Nursing,
   Komarapalayam.

5. Mrs.A.VANAJA, M.S.W., M.Sc., (Psy),
   Social Welfare Officer,
   Govt. Head Quarters Hospital,
   Erode.

6. Mr.N.SENTHILKUMAR,
   Clinical Psychiatrist,
   Govt. Head Quarters Hospital,
   Erode.

# APPENDIX – IV

## LETTER SEEKING PERMISSION TO CONDUCT THE RESEARCH STUDY

From,

**30083644**
II year M.Sc (Nursing),
Annai J. K. K.M. Sampoorani Ammal College of Nursing,
Komarapalayam- 638183,
Namakkal District.

To,

**The Superintendent of Police,**
**Thiruvananthapuram (Rural)**

Through

The Dean,
Annai J. K .K. M. Sampoorani Ammal College of Nursing,
Komarapalayam- 638 183,
Namakkal District.

DEAN
Annai J.K.K.Sampoorani
Ammal College of Nursing
Komarapalayam - 638 183.

**Sub: Seeking permission to conduct the research study.**

Respected sister,

I am **30083644** II year M.Sc., nursing student of Annai J. K. K.M. Sampoorani Ammal College of Nursing, under the Tamil Nadu Dr. M G. R Medical University, Chennai.

As a partial fulfillment of university requirement for an award of Master of Science in Nursing Degree, I am conducting a research on the following topic **"A STUDY TO ASSESS THE STRESS AMONG POLICE BEFORE AND AFTER AEROBIC LAUGHTER THERPY IN SELECTED POLICE STATION, KERALA "**I would like to avail the subjects for the research from your esteemed camp centre. Please grant permission for the same.

Thanking you

Place: 25/09/2009

Date : Thiruvananthapuram

Yours faithfully,
**30083644**

P. K. MADHU. IPS,
SUPERINTENDENT OF POLICE
THIRUVANANTHAPURAM RURAL

DATED THIRUVANANTHAPURAM RURAL

# APPENDIX – V

## QUESTIONNAIRE ON STRESS AMONG POLICE PERSONNEL

### SECTION – 1: BACKGROUND FACTORS

Code No.: _____

*Instruction:*

This section seeks information regarding the selected factors related to you. Kindly read each question and place a tick ( ✓ ) mark in the appropriate choice which is acceptable to you.

1. Age _____ years (specify)

   a. > 25 years ☐

   b. 25-35 years ☐

   c. Above 35 years ☐

2. Educational Status

   a. Higher Secondary education ☐

   b. Graduate ☐

   c. Post graduate ☐

3. Marital Status

   a. Married ☐

   b. Unmarried ☐

   c. Divorced / Separated ☐

   d. Widower ☐

   e. Remarried ☐

4. Type of family

a. Nuclear ☐

b. Joint ☐

c. Extended ☐

5. Religion

a. Hindu ☐

b. Christian ☐

c. Muslim ☐

d. Others ☐

6. State your work experience as police

a. 1-5 years ☐

b. 6-10 years ☐

c. 11-15 years ☐

d. > 15 years ☐

7. Area of posting

a. Urban ☐

b. Rural ☐

c. Semi urban ☐

8. State your habits

a. Drinking only ☐

b. Smoking only ☐

c. Both drinking and smoking ☐

d. None of the above ☐

e. Any other _____ (specify) ☐

9. Leisure time activity

a. Reading books ☐

b. Watching TV ☐

c. Games ☐

d. Others ☐

10. State the type of work demand

a. Outdoor work only ☐

b. Police station work only ☐

c. Both police station and outdoor work ☐

11. State the type of dependents you have

a. Child (ren) ☐

b. Spouse ☐

c. Parent (s) ☐

d. Siblings ☐

e. None of the above ☐

12. Do you suffer from any of the following illness?

a. Asthma ☐

b. Diabetes ☐

c. Blood pressure ☐

d. Any other _____ (Specify) ☐

13. State the duration of sleep / day?

a. < 8 hours ☐

b. 8 hours ☐

c. > 8 hours ☐

14. State duration of work per day, you have?

a. 8 hours / day ☐

b. > 8 hours / day ☐

15. Rank of your job?

a. Constable ☐

b. Head-Constable ☐

c. A.S.I. ☐

SECTION II

RATING SCALE TO ASSESS JOB RELATED STRESS AMONG POLICE OFFICERS

Code No.: _____

*Instruction*

Below is given different life situations a police officer usually undergoes due to the nature of his job. For the past six months how much stress do you experience in the below mentioned aspects. Please tick ( ✓ ) the most appropriate score ranging from no stress to most severe stress (7 points).

| *Absence of stress* | | | *Mild stress* | | | *Severe stress* |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1. | Frequent change in work shifts | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. | Alone night duties | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. | Payment for extra working hours. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. | Injuries and accidents that can occur during work | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. | Activities related to work | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. | Mental and physical trauma related to work | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. | Social life after duty hours | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. | Do you get adequate time to spend with your family and friends | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9. | Office work | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10. | Do you consume enough nutritious food during duty hours. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 11. | Do you get enough time for exercise and sports related activities | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12. | Physical tiredness / exertion (extra duty) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 13. | Physical complaints related to work. Eg: Back ache | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 14. | Opinion of your family and friends regarding your work or job | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 15. | Friends circle other than co-workers | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 16. | Effort to improve your status in the society | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 17. | Criticism from the public | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 18. | Your social boundaries.<br>Eg: Your friends circle, people who you associate with. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 19. | Do you think you are always associated with work. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 20. | Do you think your family and friends suffers the consequences of the mishaps and mistakes that occur during your job. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

SECTION III

STRESS RELATED TO WORK STYLE IN POLICE DEPARTMENT

Code No.: _____

*Instruction*

Below is given different life situations a police officer usually undergoes due to the nature of his job. For the past six months how much stress do you experience in the below mentioned aspects. Please tick ( ✓ ) the most appropriate score ranging from no stress to most severe stress (7 points).

| *Absence of stress* | | | *Mild stress* | | | *Severe stress* |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1. | Mingling with co-workers | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. | Do you think workers are treated with partiality and favoiritism | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. | Need to prove your talent and potential in police service | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. | Excess administrative work | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. | Frequent changes in protocol | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. | Deficiency in number of workers | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. | Work politics in higher officers | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. | Excess computer work | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9. | Lack of training in operating new gadgets and devices | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10. | Confusion regarding use of leisure hours | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 11. | When dealing with higher authorities | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12. | Unstable leadership styles and functioning | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 13. | Inadequate delegation of work load | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 14. | Lack of adequate resources | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 15. | Are you injured or having any diseases, does your colleagues show any indifference because of that. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 16. | Does your higher officers excessively criticize your work faults. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 17. | Internal conflicts | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 18. | Stress related to judicial works | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 19. | Responsibility and need for commitment to your duty | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 20. | Inadequacy and in efficiency of infrastructure | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

# APPENDIX – VI

## പോലീസ് ഉദ്യോഗസ്ഥരുടെ ഇടയിലുള്ള മാനസിക സംഘർഷത്തെ സംബന്ധിച്ചുള്ള ചോദ്യാവലി.

### വിഭാഗം : 1 – പശ്ചാത്തല ഘടകങ്ങൾ

കോഡ് നമ്പർ :.....

**നിർദ്ദേശങ്ങൾ**

ഈ വിഭാഗത്തിൽ നിങ്ങളുടെ ചില തിരഞ്ഞെടുത്ത ഘടകങ്ങളെക്കുറിച്ചുള്ള വിവരങ്ങളാണ് തേടുന്നത്. നിങ്ങൾക്ക് സ്വീകര്യവും ഉചിതവുമായവ തിരഞ്ഞെടുത്ത് ടിക് (✓) എന്ന് അടയാളപ്പെടുത്തുക.

1) വയസ്സ് ..... വർഷം

a) 25 വയസ്സിൽ താഴെ ☐

b) 25 വയസ്സു മുതൽ 35 വയസ്സ് വരെ ☐

c) 35 വയസ്സിനു മുകളിൽ ☐

2) വിദ്യാഭ്യാസ യോഗ്യത

a) ഹയർ സെക്കൻഡറി വിദ്യാഭ്യാസം ☐

b) ബിരുദം ☐

c) ബിരുദാനന്തര ബിരുദം ☐

3) വൈവാഹികം

a) വിവാഹിതൻ ☐

b) അവിവാഹിതൻ ☐

c) വിവാഹബന്ധം വേർപ്പെടുത്തിയവൻ ☐
അല്ലെങ്കിൽ
ഭാര്യയുമായി അകൽന്നു ജീവിക്കുന്നവൻ ☐

d) ഭാര്യ മരിച്ചുപോയ ആൾ ☐

e) രണ്ടാം വിവാഹം കഴിച്ചവൻ ☐

4) കുടുംബഘടന

a) അണുകുടുംബം ☐

b) കൂട്ടുകുടുംബം ☐

c) വിപുലമായ കുടുംബം ☐

5) മതം

a) ഹിന്ദു ☐

b) ക്രിസ്റ്റ്യൻ ☐

c) മുസ്ലിം ☐

d) മറ്റുള്ളവർ ☐

6) പോലീസ് ജോലിയിൽ നിങ്ങളുടെ പ്രവൃത്തിപരിചയം

a) 1–5 വർഷം ☐

b) 6–10 വർഷം ☐

c) 11–15 വർഷം ☐

d) 15 വർഷത്തിനു മുകളിൽ ☐

7) ജോലിസ്ഥലം

a) നഗരം ☐

b) ഗ്രാമം ☐

c) അർദ്ധ നഗരം ☐

8) നിങ്ങളുടെ സ്വഭാവങ്ങൾ വ്യക്തമാക്കുക.

a) മദ്യപാനം മാത്രം ☐

b) പുകവലി മാത്രം ☐

c) മദ്യപാനവും പുകവലിയും ☐

d) മേൽപ്പറഞ്ഞതൊന്നു മില്ല ☐

e) മറ്റെന്തെങ്കിലും ..... (വ്യക്തമാക്കുക) ☐

9) വിശ്രമവേളകളിലെ പ്രവർത്തനങ്ങൾ

a) പുസ്തക പാരായണം ☐

b) ടെലിവിഷൻ കാണൽ ☐

c) മറ്റ് കളികൾ ☐

d) മറ്റ് വിനോദങ്ങൾ ☐

10) എവിടെല്ലാമാണ് നിങ്ങളുടെ ജോലിസ്ഥലങ്ങൾ

a) പുറം ജോലികൾ മാത്രം ☐

b) പോലീസ് സ്റ്റേഷൻ ജോലി മാത്രം ☐

c) പോലീസ് സ്റ്റേഷൻ ജോലിയും പുറം ജോലിയും ☐

11) നിങ്ങളുടെ ആശ്രിതൻമാർ

a) കുട്ടികൾ ☐

b) ഭാര്യ ☐

c) മാതാപിതാക്കൾ ☐

d) സഹോദരീ സഹോദരന്മാർ ☐

e) മേൽപ്പറഞ്ഞ ആരുമില്ല ☐

12) നിങ്ങൾ താഴെപ്പറയുന്ന ഏതെങ്കിലും അസുഖ ബാധിതനാണോ?

a) ആസ്തമ ☐

b) പ്രമേഹം ☐

c) രക്തസമ്മർദ്ദം ☐

d) മറ്റേതെങ്കിലും ☐

13) ഉറക്കത്തിന്റെ ദൈർഘ്യം പ്രതിദിനം

a) 8 മണിക്കൂറിൽ താഴെ ☐

b) 8 മണിക്കൂർ ☐

c) 8 മണിക്കൂറിനു മുകളിൽ ☐

14) നിങ്ങളുടെ ദിവസവുമുള്ള ജോലിസമയം

a) പ്രതിദിനം 8 മണിക്കൂർ ☐

b) പ്രതിദിനം 8 മണിക്കൂറിനു മുകളിൽ ☐

15) നിങ്ങളുടെ ജോലി പദവി

a) കോൺസ്റ്റബിൾ ☐

b) ഹെഡ്കോൺസ്റ്റബിൾ ☐

c) എ.എസ്. ഐ ☐

വിഭാഗം : 2

## പോലീസിന്റെ പ്രവർത്തന സംബന്ധമായ മാനസിക സംഘർഷത്തെ സംബന്ധിച്ചുള്ള ചോദ്യാവലി.

കോഡ് നമ്പർ :.....

### നിർദ്ദേശങ്ങൾ

ഒരു പോലീസ് ആഫീസറായിരിക്കുന്നതിനുള്ള വിവിധ ഭാവങ്ങൾ വിവരിക്കുന്ന ഒരു പട്ടികയാണ് താഴെ കൊടുത്തിരിക്കുന്നത്. താഴെക്കൊടുത്തിരിക്കുന്ന പട്ടികയിലെ ഓരോ ഇനവും കഴിഞ്ഞ 6 മാസമായി എത്രത്തോളം പിരിമുറുക്കം നിങ്ങൾക്ക് ഉളവാക്കിയിട്ടുണ്ടെന്ന് കാണിക്കുന്നതിനു വേണ്ടി ഓരോന്നിലും വൃത്തം ഇടുക. ഒരു പിരിമുറുക്കവും ഇല്ല എന്ന് തുടങ്ങി ധാരാളം പിരിമുറുക്കം എന്നവുസാനിക്കുന്ന ഏഴ് (7) പോയിന്റുള്ള ഒരു സൂചിക താഴെ കൊടുത്തിരിക്കുന്നതു കാണുക.

| പിരിമുറുക്കം ഇല്ല | | | മിതമായ പിരിമുറുക്കം | | | വളരെയധികം പിരിമുറുക്കം |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1. | മാറിമാറി വരുന്ന ജോലിക്രമം | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. | രാത്രികാലത്ത് ഒറ്റയ്ക്കുള്ള ജോലി | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. | നിർബന്ധമായുള്ള അധികജോലി | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. | ജോലിസമയത്ത് സംഭവിച്ചേക്കാവുന്ന, മുറിവേൽക്കപ്പെടാനുള്ള സാധ്യത | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 5. | ജോലിയുമായി ബന്ധപ്പെട്ട പ്രവർത്തനങ്ങൾ (ഉദ:- കോടതി, സാമൂഹികം) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. | ശാരീരികവും മാനസികവുമായ ക്ഷതങ്ങൾ (ഉദ:- മരണം, മുറിവേൽക്കപ്പെടുക) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. | ജോലിസമയത്തിനു ശേഷം നിങ്ങൾ എങ്ങനെ സാമൂഹികജീവിതം നയിക്കുന്നു. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. | സുഹൃത്തുക്കളും കുടുംബവുമായി പങ്കിടുന്നതിനു വേണ്ടി നിങ്ങൾക്ക് വേണ്ടത്ര സമയം ലഭിക്കാറുണ്ടോ. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9. | ആഫീസ് ജോലി | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10. | ജോലിസമയത്ത് നല്ല ആഹാരങ്ങൾ | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11. | നല്ല കായികക്ഷമത നിലനിർത്താൻ ആവശ്യമായ സമയം കണ്ടെത്താറുണ്ടോ? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12. | ക്ഷീണം (തവണവച്ചുള്ള ജോലി, അധികജോലി) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 13. | തൊഴിൽ സംബന്ധമായ ആരോഗ്യ പ്രശ്നങ്ങൾ (ഉ ദ:- നടുവേദന) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 14. | നിങ്ങളുടെ ജോലിയെക്കുറിച്ച് കുടുംബത്തിനു കൂട്ടുകാർക്കുമുള്ള ധാരണക്കുറവ്. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 15. | ജോലിക്കുപുറമേയുള്ള സൗഹൃദ സാധ്യത | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 16. | സമൂഹത്തിൽ ഉയർന്ന ഒരു പ്രതിച്ഛായ ഉയർത്തി പ്പിടിക്കാൻ ശ്രമിക്കുമ്പോൾ | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 17. | പൊതുജനങ്ങളിൽ നിന്നുള്ള നിഷേധാത്മകമായ വിമർശനങ്ങൾ | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 18. | നിങ്ങളുടെ സാമൂഹ്യജീവിതത്തിന്റെ പരിധികൾ (ഉദ:- നിങ്ങളുടെ സ്നേഹിതൻമാർ ആരൊക്കെ, ആരൊക്കെയയാണ് നിങ്ങൾ ഇടപഴകുന്നത്) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 19. | എല്ലായിപ്പോഴും നിങ്ങൾ ജോലിയിൽ ഏർപ്പെട്ടുകൊണ്ടിരിക്കുന്നു എന്നുള്ള തോന്നൽ | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 20. | നിങ്ങളുടെ ജോലിയുമായി ബന്ധപ്പെട്ടുള്ള കളങ്കം/ദു:ഷ്കീർത്തിയുടെ ഫലം നിങ്ങളുടെ സുഹൃത്തുക്കളും/ നിങ്ങളുടെ കുടുംബവും അനു ഭവിക്കുന്നുണ്ടോ. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

വിഭാഗം : 3

## പോലീസ് സംവിധാനത്തിലെ മാനസിക സംഘർഷത്തെ സംബന്ധിച്ചുള്ള ചോദ്യാവലി.

കോഡ് നമ്പർ :.....

### നിർദ്ദേശങ്ങൾ

ഒരു പോലീസ് ആഫീസറായിരിക്കുന്നതിനുള്ള വിവിധ ഭാവങ്ങൾ വിവരിക്കുന്ന ഒരു പട്ടികയാണ് താഴെ കൊടുത്തിരിക്കുന്നത്. താഴെക്കൊടുത്തിരിക്കുന്ന പട്ടികയിലെ ഓരോ ഇനവും കഴിഞ്ഞ 6 മാസമായി എത്രത്തോളം പിരിമുറുക്കം നിങ്ങൾക്ക് ഉളവാക്കിയിട്ടുണ്ടെന്ന് കാണിക്കുന്നതിനു വേണ്ടി ഓരോന്നിലും വൃത്തം ഇടുക. ഒരു പിരിമുറുക്കവും ഇല്ല എന്ന് തുടങ്ങി ധാരാളം പിരിമുറുക്കം എന്നവുസാനിക്കുന്ന ഏഴ് (7) പോയിന്റുള്ള ഒരു സൂചിക താഴെ കൊടുത്തിരിക്കുന്നതു കാണുക.

| പിരിമുറുക്കം ഇല്ല | | | മിതമായ പിരിമുറുക്കം | | | വളരെയധികം പിരിമുറുക്കം |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1. | സഹപ്രവർത്തകരുമായി ഇടപ്പെടുമ്പോൾ | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. | പലർക്കും വ്യത്യസ്ത നിയമങ്ങളാണ് നിലനില്ക്കുന്നു എന്നുള്ള തോന്നൽ (സ്വജനപക്ഷപാതം) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. | പോലീസ് സേനയിൽ നിങ്ങളുടെ കഴിവ് തെളിയിക്കേണ്ടതായിട്ടുണ്ട് എന്നുള്ള തോന്നൽ | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. | അധികമായ ഭരണച്ചുമതലകൾ | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

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|---|---|---|---|---|---|---|---|---|
| 5. | നയത്തിൽ / നിയമനിർമ്മാണത്തിൽ നിരന്തരമായുണ്ടാകുന്ന മാറ്റങ്ങൾ | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. | ജീവനക്കാരുടെ കുറവ് | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. | ഉദ്യോഗസ്ഥ ദു:ഷ്പ്രഭുത്വത്തിലെ ചുവപ്പ് നാട | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. | അധികമായ കംപ്യൂട്ടർ ജോലി | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9. | പുതിയ ഉപകരണങ്ങൾ കൈകാര്യം ചെയ്യുന്നതിലുള്ള പരിശീലനത്തിന്റെ കുറവ് | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10. | ജോലിയില്ലാത്ത സമയം എങ്ങനെ ഉപയോഗിക്കണം എന്നുള്ളതിനെക്കുറിച്ചുള്ള സമ്മർദ്ദം | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11. | മേലധികാരികളുമായി ഇടപെടുമ്പോൾ | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12. | സ്ഥിരതയില്ലാത്ത നേതൃത്വ രീതികൾ | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 13. | വിഭവങ്ങളുടെ അഭാവം | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 14. | ജോലി ഉത്തരവാദിത്ത്വങ്ങളുടെ തുല്യമല്ലാത്ത വിഭജനം | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 15. | നിങ്ങൾ അസുഖബാധിതനോ മുറിവേൽക്കപ്പെട്ടവനോ ആണെങ്കിൽ നിങ്ങളുടെ സഹപ്രവർത്തകർ നിങ്ങളെ വെറുക്കുന്നുണ്ടോ? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 16. | മേലധികാരികൾ നിങ്ങളുടെ വീഴ്ചകളെ പെരുക്കിക്കാണിക്കുന്നുണ്ടോ? (ഉദ:- മേലുദ്യോഗസ്ഥൻമാരുടെ വിലയിരുത്തൽ പൊതുജനങ്ങളുടെ പരാതികൾ) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 17. | ആന്തരിക അന്വേക്ഷണങ്ങൾ | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 18. | കോടതികാര്യങ്ങൾ കൈകാര്യം ചെയ്യുമ്പോൾ | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 19. | നിങ്ങളുടെ ജോലിയോടുള്ള ഉത്തരവാദിത്ത്വത്തിന്റെ ആവശ്യകത. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 20. | ഉപകരണങ്ങളുടെ അപര്യാപ്തത | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

# APPENDIX – VII

## AEROBIC LAUGHTER THERAPY FOR POLICE PERSONNEL

INSTRUCTIONS

1. Welcome Laugh

    a. Lift both your hands and bend backwards.

    b. And bend over reacting your knees.

    c. Repeat the steps 5 times as your laugh along.

2. Head laugh

    a. Rotate your head clock wise once

    b. Rotate head anti-clock wise

    c. Laugh along as you repeat the steps 10 times

3. Hand laugh

    a. Spread your feet apart.

    b. Spread your hands perpendicular to your shoulder

    c. Bend towards each side

    d. Laugh along

4. Clapping laugh

    a. Bend forward a clap your hands front two times

    b. Clap your hands above your head

5. Milk shake laugh

a. Place both your hands on both your hips
b. Rotate your hip clockwise 5 times
c. Rotate your hip anti clock wise 5 times
d. Laugh along

6. Aerobic stretching laugh

a. Spread your legs
b. Bend of little forward as you rest both your hands above the knee
c. Laugh along

7. Silent laugh

a. Take a deep breath
b. Expire the air or breath out while widely opening your mouth
c. Laugh along with out producing sound

8. Lion laugh

a. Spread your palms as you rest your thumb near your ears
b. Try protruding your eyes and tongue as much as you could.
c. Laugh along

# APPENDIX – VIII

## PHOTOS

# ABSTRACT

A study to assess the stress among police personal in selected police station coming under Attaingal Jurisdiction, Thiruvananthapuram District, in partial fulfillment of the requirements for the award of the degree of Master of Science in Nursing was done by 30083644 from Annai JKK Sampoorani Ammal College of Nursing, under the Tamilnadu Dr.MGR Medical University, Chennai, March 2010.

The objectives of the study were, to assess the stress among police personnel before and after aerobic laughter therapy in selected police station, Kerala, to test the association between the mean difference in stress and selected factors among police personnel in selected police station, Kerala.

The research hypothesis were, $H_1$) There will be a significant difference in the stress among police personnel before and after aerobic laughter therapy in selected police station, Kerala. $H_2$) There will be a significant association between the mean difference in stress and selected factors among police personnel in selected police station, Kerala.

Literature review was done for the present study includes i) Occupational stress in general, ii) Police stress, iii) Laughter therapy in general, iv) Laughter therapy and stress and v) Humour in general.

The investigator developed a conceptual frame work based on the Von Bertalanffy's general system theory. The research approach adopted for the study was a pre experimental research design, one group pre test – post test design. Sample size was 35 police personnel in selected police stations in Attingal Jurisdiction, Thiruvananthapuram District. The sampling technique used in the study was convenience sampling technique.

A standardized questionnaire used for data collection. The reliability of the tool for the present study was established by the test – retest method. The reliability co-efficient was found to be r = 0.96, high. Pre test was given. Aerobic laughter therapy was administer for 14 days. Post test stress was measured.

The findings of the study revealed that, the aerobic laughter therapy was significantly effective to reduce the operational police stress. The aerobic laughter therapy was not effective to reduce the organizational police stress. There was significant association between the organizational police stress and rank among police personnel in selected police station, Kerala.

Implication, limitation and recommendation were clearly defined and stated in the report of the study.